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**EXTENDING HEALTH SERVICES TO RURAL
RESIDENTS IN JIRAPA DISTRICT**

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Extending health services to rural residents in Jirapa District

**Analyses of national health insurance enrolment and access to health
care services**

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Abstract

This thesis sheds light on differences in health insurance enrolment determinants and uptake barriers between urban and rural areas in the Jirapa district of Ghana. The National Health Insurance Scheme in Ghana has made significant progress in terms of enrolment, which has had a commensurate increase in utilization of health care services. However, there are challenges that pose a threat to the scheme's transition to universal coverage; enrolment in the scheme has not progressed according to plan, and there are many barriers known to impede uptake of health care. Interestingly, these barriers vary in relation to locality, and rural residents appear to carry a disproportionate portion of the burden.

A mixed method approach was employed to collect and analyse the data. On the basis of the primary qualitative and quantitative results, the thesis argues that the costs of enrolling and accessing health care is disproportionately higher for rural residents than it is their urban counterparts. It also highlights that the distribution of service benefits both in terms of the NHIS and health care in the Jirapa district favours urban residents. Lastly, the thesis found that whereas rural residents prefer health care provision to be social in nature, urban residents were more interested in the technical quality aspects of care.

These findings suggest that rural residents are not benefitting from, or may not be accessing health services to the extent as their urban counterparts. Affordability, long distance to health facilities, availability and acceptability barriers were found to influence the resultant pro-urban distribution of the overall health care benefit.

Keywords

Ghana, Jirapa district, health systems, health insurance, access, barriers, equity, rural, urban.

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Summary of findings

Ghana's National Health Insurance Scheme enjoyed remarkable success in its early years of implementation. The scheme has diverse sources of funding, and appears to have made a significant difference in terms of increase in utilization of health care services, which had declined swiftly under the previous "cash and carry" system. Despite such progress, the scheme has faced serious challenges that have caused enrolment to stagnate in recent years. Not only has the NHIS failed to meet enrolment targets, but uptake of health care barriers persist and threaten to scupper the scheme's intent on transitioning to universal health coverage in the near future. In general, there are barriers to enrolment and to

uptake of health care, but these vary in relation to locality, and rural residents appear to carry a disproportionate portion of the burden.

Universal coverage requires that health systems provide all citizens with the needed health care at an affordable cost. The concept has equity implications both for financial protection and the availability of health care to all population groups in need. Assessing health care equity is therefore an attempt to measure not just the extent of financial protection, but also the geographic accessibility, availability, as well as the acceptability of health care to the population concerned. The objectives of this study were framed along the above notion of universal coverage with a clear focus on using a mixed methods approach to identify the differences in determinants of enrolment and uptake barriers of health care between urban and rural areas in the Jirapa district.

The summary of findings are presented in line with the three objectives of the thesis. The first objective was an attempt to analyse whether long distance to facilities, and travel costs in time and money makes enrolling in the NHIS and uptake of health care more expensive and unaffordable to rural residents. This study found that being in the rural area compared to respondents in the urban area had a significant and negative association with wealth. The costs of enrolling and accessing health care are also disproportionately higher for rural areas compared to urban areas. This stems not only from the costs of transportation to Jirapa for enrolment, but also from the costs of other services when admitted to the Jirapa hospital. These additional expenses (not suffered by urban residents), coupled with perceptions of high cost of NHIS premiums and registrations fees, poor timing of collection of contributions from rural

households, add up in making health services unaffordable for the majority of people resident in remote villages of the district. Although the debate on affordability of NHIS premiums and/or health care is not new, previous studies looked at it mostly from the perspective of socioeconomic status, not on the basis of locality as this study has done.

Additionally, this study found that the distribution of health services both in terms of the health insurance and health care in the Jirapa district favours urban residents. Firstly, the most important service centres for enrolment (NHIS office) and health care provision (district hospital) are located in Jirapa town, close to urban dwellers. Similarly, the distribution of higher cadre health personnel is skewed in favour of the two health facilities in Jirapa town while rural health facilities are in short supply of staffs. The consequence of this situation is frequent referrals from lower level facilities to the district hospital, leading to overcrowding, longer waiting times, and the provision of care perceived to be poor in quality. Addressing these sets of challenges requires scaling up the geographic distribution of health facilities and personnel. It also requires ensuring the routine availability of essential medicines in all facilities through improved drug procurement and distribution systems, and providing patient transport to referral facilities.

The study also confirmed differences in perceptions of the quality of care between rural and urban residents observed earlier by Jehu-Appiah et al. (2011). It was found in this study that whereas rural residents seemed to prefer health care provision to be social in nature, urban residents in contrast, were more interested in the technical quality aspects of care they received from

public health facilities. While this finding is not entirely new, it reinforces the need for a patient-centred approach to health care provision. This approach requires that providers understand the varying needs and expectations of patients in order to be able provide them with the best possible quality care. It means providing training and the necessary performance related incentives to providers to encourage them to deliver quality health care.

Although the findings are not meant to be generalised to other districts nor to the entire population of Ghana, for Jirapa district however, the findings demonstrate that rural residents are not accessing health services to the extent as their urban counterparts. Affordability, long distance to health facilities, availability and acceptability barriers influence the resultant pro-urban distribution of health care service.

Chapter One

1.0 Introduction

This thesis explores the potential for the national health insurance scheme in Ghana (NHIS) to extend health coverage to rural residents. It tries to shed light on the dynamics of health care financing and health care provision in a poor country like Ghana. In specific terms, the thesis attempts to highlight differences in determinants of enrolment and uptake barriers between urban and rural areas. It also examines whether the poor, particularly people living in rural areas, have equitable access to health care benefits provided under the NHIS.

Achieving universal health coverage through the implementation of national health insurance schemes has increasingly gained currency in low and middle income countries as a result of governments' inability to adequately finance health care through other health financing mechanisms such as user fees (Hsiao et al., 2007, ILO, 2008a). Universal coverage has become a preferred policy objective in these countries because it provides financial protection against the costs of health care that makes it possible for all residents to have access to needed health care (McIntyre and Mills, 2012, WHO, 2010b, Borghi, 2011, Jehu-Appiah et al., 2011c). Another argument in favour of universal health coverage is that increased economic growth and development is enhanced when the population is healthy - a healthy labour force is seen as a prerequisite for increased economic productivity, which leads to increased household income and improvements in the overall standard of living (ILO, 2008a, Barrientos, 2007, Barrientos and Hulme, 2010a). To this end Ghana passed the National Health Insurance Act (NHIA) in August 2003, and it

became operational in March 2004 (Ramachandra and Hsiao, 2007). The scheme is operated as a decentralised national health insurance system including district mutual health insurance schemes in 159 districts, private mutual health insurance, and private commercial insurance schemes (NHIA, 2013b). The objective is to ensure that all residents of Ghana have an opportunity to enrol in a health insurance scheme of their choice. After more than a decade of implementation, substantial progress has been made in terms of health insurance coverage and improving access to basic health care services. There is evidence that increased enrolment in the NHIS has had a commensurate increase in utilization of health care (Dixon et al., 2014b, Schieber et al., 2012b, Chankova et al., 2010), and overall life expectancy has increased within the same period (WHO, 2015a).

These achievements notwithstanding, there are considerable challenges in terms of enrolment and uptake of health care that pose a threat to the scheme's transition to universal coverage. For example, the collection of premiums from people in the informal sector, identifying indigents, and developing health management information systems for enrolment, claims processing and payment have been challenging (Singh et al., 2015b, Schieber et al., 2012b). Some scholars have also argued that the scheme's flat rate premium payment system for those in the informal sector is regressive and pro-rich (Akazili et al., 2014, Akazili et al., 2012, Macha et al., 2012, Mills et al., 2012b, Witter and Garshong, 2009c, Apoya and Marriott, 2011). Others have described the scheme's benefits package as being too generous and unsustainable given Ghana's relative low level of fiscal space (Jehu-Appiah, 2015, Schieber et al., 2012b, Saleh, 2012).

These challenges, however, have not come as a surprise given the lack of robust institutions and the much needed technical know-how that is typical of most health systems in low-income countries (Saleh, 2012, Schieber et al., 2012b, Barrientos and Hulme, 2010a, Durairaj et al., 2010a). A complex nationwide project like the National Health Insurance Scheme requires the development of institutions and technical know-how to effectively coordinate the operations of all the 159 fragmented district mutual health insurance schemes. But aside from establishing a well-coordinated national health insurance scheme, a well-functioning health care delivery system is also needed to provide quality health care to subscribers. Durairaj et al. (2010a) have argued that a health insurance scheme can only be successful if it is built on a well-functioning health care delivery system. Clearly, the health care delivery system in Ghana has shortcomings, ranging from limited resources (infrastructure, personnel, equipment etc.) to uneven urban-rural distribution of these limited resources. Against this background, questions are being asked about the NHIS's progress in terms providing financial health protection as well as ensuring equitable distribution of the benefits of health care to the entire population, irrespective of location or socioeconomic status.

1.1 Rationale for the study

The conception of this research project can be traced to a variety of factors, yet the first factor was the sense that the NHIS had become a battleground for international organizations wishing to showcase and promote their ideological positions. In spite of the visible challenges that confront the scheme, government officials, with the backing of the World Bank had continued to

reinforce the claim that close to half of the Ghanaian population was already enrolled in the scheme in less than five years of implementation. In fact, the World Bank touted the NHIS as the model for other African countries planning on implementing national health insurance to emulate. This claim was however dismissed by rights-based (or social justice) organizations that oppose the Bank's pro-libertarian model of health insurance. Spearheaded by Oxfam, these rights-based organizations branded the claims as misleading. In fact, contrary to these claims, a study commissioned by Oxfam in 2010 concluded that the NHIS was pro-rich and that it had covered an estimated 18 percent of the population, and not the 45 percent reported by the NHIS in 2009 (Apoya and Marriott, 2011). Clearly, the NHIS had become an ideological battleground for international organizations like the World Bank against organizations that are opposed to the Bank's promotion of a libertarian model of health insurance, in favour of an egalitarian system that makes basic health care accessible to entire population. This ideological tug of war made researching the NHIS for more insight into the dynamics of health care financing and health care provision in Ghana a compelling exercise.

This is not to suggest that research has not been done at all in this area. In fact, there is an enormous quantity of literature both generally as well as literature that is specific to the NHIS and the health system in Ghana. For example, there is a vast amount of literature on the determinants and barriers that impede access to health services to populations in LMICs. Whereas some scholars have identified factors such as long distance to the nearest health facility, overcrowded facilities that impose long waiting times and timing of premium payments as common impediments to access to care (Macha et al., 2012,

Dalinjong and Laar, 2012, Witter and Garshong, 2009c, Basaza et al., 2008, Buor, 2005, Chankova et al., 2008, Gobah and Liang, 2011a, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Akazili et al., 2014, Apoya and Marriott, 2011, Schieber et al., 2012b, Mills et al., 2012b, Borghi, 2011, Borghi et al., 2013, Peters et al., 2008, McIntyre et al., 2009, McIntyre et al., 2005, McIntyre et al., 2002, Diop, 2005), other studies have included lack of information on available services, lack of confidence in facilities and staff, restricted opening hours at facilities, and sociocultural barriers including constraints related to gender or age, beliefs and cultural preference as significant barriers (Jacobs et al., 2012, Peters et al., 2008, WHO, 2015c, Jehu-Appiah et al., 2011b, McIntyre et al., 2009, Dixon et al., 2014a).

On the back of the emerging structural, operational and ideological issues, many studies have looked at the progress and challenges of the NHIS in a variety of ways. While some studies are of the view that enrolment in the NHIS has led to increase in utilization (Dixon et al., 2014b, Schieber et al., 2012b, Chankova et al., 2010, Frempong et al., 2009), many other studies have been critical of the equity aspects of the scheme's design, particularly the premiums, and have concluded that the flat rate contribution levied on people in the informal sector is a regressive payment system that is pro-rich and therefore inequitable (Atinga et al., 2015, Averill and Marriott, 2013a, Atinga, 2012b, Akazili et al., 2012, Mills et al., 2012a, Mills et al., 2012b, Schieber et al., 2012b, Apoya and Marriott, 2011, Gobah and Liang, 2011a, Jehu-Appiah et al., 2011c, Durairaj et al., 2010a, Mensah et al., 2010, Witter and Garshong, 2009c, Ramachandra and Hsiao, 2007, Macha et al., 2012, Abihiro and De Allegri, 2015,

Akazili et al., 2014, Kusi et al., 2015a, Kusi et al., 2015b, Chankova et al., 2010, Chankova et al., 2008, Nketiah-Amponsah, 2009a).

Although some studies have shown that long distance to health facilities is an impediment to access to health services in Ghana (Akazili et al., 2014, Macha et al., 2012, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011b, Gething et al., 2012), to the best of my knowledge, none of these studies has specifically examined the differences in determinants of enrolment and uptake of health care between urban and rural areas in any of the three northern regions of Ghana; the three northern regions, which include the Upper West, Upper East and Northern region, are the poorest of ten regions of Ghana (GSS, 2014, GSS, 2015), and I argue that differences in the level of resource endowment and levels of socioeconomic development in the regions may also create differences in availability, affordability and acceptability of health care services.

The few studies that have focused on NHIS enrolment and access to health care in the northern part of Ghana have done so not specifically in terms of users' location (rural or urban), and how this might create differences in enrolments and health care access. For example, Akazili et al. (2014) survey of seven districts in northern Ghana focused mainly on extent to which child-bearing mothers are covered by the NHIS. Although the study identified location as one of the factors associated with enrolment into the NHIS, no mention is made of the relationship between location and uptake of health care in facilities. Thus, the analysis of this study limits us only to an understanding of some of the factors associated with enrolment of child-bearing mothers into the NHIS. Similar to the above study, Dixon et al. (2014a) and Dixon et al. (2014b) have

looked at enrolment into the NHIS in the Upper West region from a gendered perspective and antenatal care among women respectively. Although these studies have highlighted the geographic divisions and the deep-seated deprivation in the northern part of Ghana, the analyses are limited to gender. For example, Dixon et al. (2014a) focuses mainly on the factors that influence enrolment and found that although wealth and desire for health insurance were contributing factors, education was the primary determinant in both never enrolling and in dropping out, and that these factors impact men and women differently. In Dixon et al. (2014b), the findings revealed that regardless of socio-economic and demographic factors, women enrolled in the NHIS make more antenatal visits compared with those not enrolled.

Thus, unlike these earlier researches on the NHIS where socioeconomic status has been the dominant benchmark used in assessing equity in the financing and provision of care, this thesis focuses on locational differences in determinants of access to enrolment and health care. The reason is that, like household wealth, geographical location remains an equally important factor that determines access to health care (Aday and Andersen, 1974b, Penchansky and Thomas, 1981, Peters et al., 2008, Donabedian, 1973, Donaldson et al., 2005, Macha et al., 2012, McIntyre et al., 2005, McIntyre et al., 2002, McIntyre et al., 2013, Mills et al., 2012b, USDA, 1973, WHO, 2015c, Jehu-Appiah et al., 2011c, Jacobs et al., 2012). A common standard measurement of geographic access to health care within countries is to break down intervention coverage by urban versus rural areas (WHO, 2015c). Recent evidence shows that across low- and middle-income countries, rural areas have lower median coverage than urban areas for tracer indicators such as antenatal care coverage and

skilled birth attendance. Whereas median coverage of SAB and DTP3 are all above 80% in urban areas, in contrast, median coverage is below 80% in rural areas for all indicators. (WHO, 2015c). Therefore, examining the specific urban-rural differences in determinants of enrolment and uptake of health care determinants together bridges an important knowledge gap given that these variables provide important indicators for assessing health services access gaps in the district.

Furthermore, other research findings on geographic differences in access to health care services in Ghana lend support to the objectives of this study. For example, Dixon et al. (2011) assessment of data from the Ghana Demographic and Health Survey uncovered regional disparities in enrolment and access to health care. It is important to note in this connection that, in addition to the wide poverty gap between the North and the South of Ghana, the Upper West (where this study was conducted) has a historically high level of underdevelopment (Al-Hassan and Diao, 2007), but it has the worse availability of health infrastructure and staffing (MoH, 2014). Thus, regional variations in the level of poverty and of health resources availability in Ghana adds impetus to the quests for research to provide understanding of the locational differences in determinants and uptake of health care barriers. It also created the need for a closer look at how equitable health care services are distributed to populations in districts in poorer regions of the country.

The purpose of this thesis therefore is to explore these differences in determinants in enrolment in the NHIS, the barriers and inequities in uptake of health care between urban and rural populations. Underpinned by a framework

for assessing poverty and access to health services, this study tries to understand the equity aspects of financing and use of health care services in the Jirapa district of Ghana. The Jirapa district provides the setting, an appropriate mix of health facilities and participants needed for the study.

1.2 Research questions

Drawing on the Jirapa District Mutual Health Insurance scheme, this thesis highlights differences in determinants of enrolment in the NHIS and uptake of health care barriers between urban and rural areas. It is built around the following three research questions:

1. Firstly, how does the cost of enrolling and accessing health care under the National Health Insurance Scheme vary between urban and rural areas in the Jirapa district? The objective of this question is to analyse whether long distance to facilities, and travel costs in time and money makes enrolling in the NHIS and uptake of health care more expensive and unaffordable to rural residents.
2. Secondly, are the benefits of the National Health Insurance Scheme distributed equitably among urban and rural residents? Given the pro-urban nature of Ghana's health care delivery system the removal of financial barriers at the point of service might not automatically guarantee the poor access to health care. For this reason it is necessary to look beyond the enrolment statistics and critically examine whether barriers such as distance to health facilities and travel and lodging related costs may still prevent the rural poor from accessing services even when they are insured by the NHIS.

3. Thirdly, do perceptions of the quality of care under the NHIS differ in relation to locality in the district? The objective is to analyse whether differences in health beliefs affect perceptions of the acceptability of health care services between rural and urban areas. The underlying assumption is that where the provision of care runs contrary to the acceptability expectations of groups of users, they may be deterred from enrolling in the scheme to have financial access to health care.

In terms of organization, this thesis is presented in 8 chapters. Chapter 2 presents the literature review of the thesis. The chapter focuses mainly on theory and related literature on equity and access to health care in low and middle-income countries. As the thesis focuses on determinants of NHIS enrolment and uptake of health care services in communities in the Jirapa district, the chapter reviewed a variety of interpretations of equity and arrived at an operational definition. Arriving at an operational definition of equity necessitated a brief review of some philosophical theories on equity in the chapter. The concept of universal coverage and various health financing models are also reviewed in an attempt to highlight how a mix of different financing systems may be useful in the achievement of universal coverage in low and middle-income countries. Evidence of how mixed financing led to the universal coverage in developed countries is also provided in this chapter. Above all, the chapter provides the spine and lays a good foundation for discussing the results of study.

Having examined the operational meanings of equity, as well as universal health coverage in Chapter 2, Chapter 3 explores the concept of 'access' in

relation to financial protection and access to needed care. Before drilling down to the operational definition of access the chapter reviews some longstanding definitions of access. This is followed by a review of the four main dimensions of access that constitute the conceptual framework underpinning the analyses of the study. The framework asserts that any policy discussions regarding access to quality health care for the poor must take into account four key determinants of access to health care services including geographical accessibility, availability, affordability and acceptability of services. Yet available evidence suggests that in low and middle-income countries the poor and rural dwellers lack equitable access to health care services because health policy decisions have failed to prioritise their health needs. The urban-oriented structure of Ghana's health system is a clear example of health policy decisions that have since the colonial period failed to meet the health care needs of rural residents. The use of this framework offers space to critically analyse whether the current system of health financial and health delivery in Ghana creates disparities in determinants of enrolment and uptake of health care between urban and rural areas.

Chapter 4 does three main things. It commences with a brief description of the geography, demography and economy of Ghana, including a brief profile of the Jirapa district. This is relevant when it comes to discussing the equity dimension of health care financing in the country. The second section of the chapter provides an overview of Ghana's health system. The reason being that the organizational structure of the health system, the extent of health service infrastructure, human resources and access to basic health care, play key parts in universal coverage policy discussions, as these determine both the

government's ability to implement reforms and extend health coverage to the population. It is argued in this section that although Ghana has a well-developed decentralised health system, limited availability of health resources and uneven urban-rural distribution of these resources pose a threat to the delivery of quality health care under the NHIS. Health care financing in Ghana has been going through transitions and reforms since the colonial period. Thus, the third section of Chapter 4 presents a chronological account of this evolution process: the various phases of health care financing reforms starting with nominal fee payment in the colonial period, free health care at independence, user fees in the 1980s as part of the structural adjustment and economic reforms programme, and the current National Health Insurance Scheme established in 2003. The chapter analyses the factors and events that triggered the reforms, and concludes with a highlight of the inequities and other implementation challenges of the current NHIS.

Chapter 5 explains in detail the methodology and the philosophical orientation of the study. It reflects on the rationale for adopting a pragmatic approach, the sampling strategy employed and the types instruments used to generate data for the thesis. The chapter also reflects on my fieldwork experience, the challenges faced during analysis of data and integration of results, and some of the ethical issues that came into play during the data gathering process.

Chapter 6 comprises of the first part of the results chapters. This relates to accessibility of services provided by the National Health Insurance Scheme. Because this is a mixed methods study, the results are divided into quantitative and qualitative sections. The quantitative results section presents descriptive

statistics of the survey sample and provides a broader scope of participants' perceptions of the accessibility of services rendered by the NHIS in the Jirapa district. The second section of the chapter is made up of a synthesis of qualitative results regarding accessibility of services rendered by the NHIS. In both sections the results are presented in line with the four thematic dimensions of access to health services; accessibility, availability, affordability and acceptability of services.

Following from Chapter 6 where the focus is on accessibility of the NHIS, Chapter 7 focuses on accessibility of health care in health facilities, especially the Jirapa district hospital which happens to be the only hospital in the district. The chapter commences with a presentation of quantitative results consistent with four dimensions of access to health. The quantitative results provide a broader scope of participants' perceptions of access to health facilities in the district. The second section of the chapter and provides a synthesis of findings that emerged from qualitative interviews.

Chapter 8 represents the substantive integrative element of the thesis. It pulls together the main findings and highlights the contribution of this thesis. It highlights differences in determinants of enrolment and uptake barriers between urban and rural areas, and puts forward a number of recommendations that have implications both for policy and future research. The recommendations highlight short and long term actions that could be taken by the NHIS and the Ghana Health Service respectively, to remove access barriers and improve equity both in financing and health care delivery in the district. The chapter also reflects on the limitations of the study.

The next chapter presents the literature review of the thesis. The review of literature focuses on the theoretical and empirical literature on equity and access to health care, with more attention on low and middle income countries, as Ghana falls into this category.

Chapter Two

2.0 Review of relevant literature

2.1 Introduction

This literature review chapter covers both theoretical as well as empirical literature on the topic. Before narrowing down to the review of empirical literature on universal health access issues in Ghana, the chapter starts off by looking at the general theoretical literature on equity and universal access to health care services. A search of the PubMed database was conducted to identify published articles on access to health services and health financial risk protection in countries. The time frame for the searches covered the period from 2015 downwards, as 2015 was the period for which thesis was submitted. Key words used were 'equity', 'access', 'barriers', 'determinants', 'financial risk protection', 'health services', 'health care', 'health insurance in Ghana', alone or in combination with 'low-income countries' or 'developing countries', 'urban areas' or 'rural areas'. Additional peer-reviewed or grey literature was identified from the reference lists of the retrieved papers. The literature search was carried out up to the point where it was thought the potential for identifying new types of barriers to access was exhausted. This review of literature provides an appraisal of existing research in the area and identifies the knowledge gap this thesis tries to fill.

As this research focuses on determinants and barriers of access to health care and NHIS enrolment bottlenecks facing residents of selected communities in the Jirapa district, this chapter looks at a variety of interpretations of equity in a bid to finding a fitting operational definition. In doing so the chapter briefly reviews

some philosophical theories on equity in order to arrive at some operational equity objectives for health care. The concept of universal coverage and various health financing models are also reviewed in an attempt to illuminate how a combination of these models may be useful in the achievement of universal coverage in low-income countries. Above all, the chapter forms the basis for discussing the results in chapter eight of this thesis.

2.2 Equity as a concept

There seems to be a general consensus around the view that equity is fundamentally about fairness and justice, yet its definition is not simple and straightforward as it tends to mean different things to different people (Jan and Wiseman, 2011, Mooney, 1993, Mooney, 1994, Wagstaff et al., 1989, Wiseman, 2011, Wagstaff and Van Doorslaer, 2000, Donaldson et al., 2005). Before going into the finer details of how equity has been defined and applied in the health sector it is important to clear up three confusing elements of equity. The first clarification is that equity typically has something to do with fairness and justice (Donaldson et al., 2005, Jan and Wiseman, 2011, Wiseman, 2011, Wagstaff et al., 1989). These scholars also observe that equity is subjective, and will mean different things to different people depending on the society or community they are coming from. For example, the different ways in which countries design and implement their health care systems is a reflection of the differences in the type of equity goals they pursue. In the United States for example, until the recent introduction of 'Obama care', equity goals tended to lean towards the provision of minimum standards (libertarian) rather than in terms of equal treatment for equal need, or equality of access. By contrast, several European countries' policy statements on equity frequently have an

equalitarian flavour (Wagstaff et al., 1989). It is also common to find that a health system is a mix of egalitarian and libertarian values. Thus, depending upon the balance of this mix, the importance of equity will vary between health systems. Even the United States' health care system recognises the shortcomings of a total reliance upon market forces which explain why Medicare and Medicaid were introduced to provide insurance cover for the elderly and the indigents respectively (Donaldson et al., 2005). And quite recently, the Patient Protection and Affordable Health Care Act was passed into law, in recognition of the need to increase equity in health care and move the USA towards a system of universal coverage (Borghi, 2011).

The second clarification to make is on the conflicting objectives of equity and efficiency. Efficiency is about the maximization of consumer satisfaction at least cost to society (Donaldson et al., 2005, Jan and Wiseman, 2011, Wiseman, 2011). In this respect, *it may be efficient to fund health services concentrated in a small number of large centres but more equitable in terms of access to services to fund a larger number of dispersed, smaller services* (Wiseman, 2011:17). Achieving efficiency is therefore the case of comparing costs and benefits of alternative health care interventions and making sure that health resources are allocated with the aim of maximizing benefits to the population. This however conflicts with equity objectives, which seek to ensure fairness in the allocation of resources. To promote fairness and justice in the allocation of health resources therefore, governments would often intervene and take up the role of providing, financing and regulating health services with the aim of ensuring equity as well as addressing different forms of market failure (Jan and Wiseman, 2011, Wiseman, 2011, Donaldson et al., 2005).

Thirdly, equity is not the same as equality. There is growing acceptance that equity has attributes that distinguish it from equality (Ooms et al., 2013, Segone, 2012, Braveman, 2006, Culyer and Wagstaff, 1993, Donaldson et al., 2005, McIntyre et al., 2002, Whitehead, 1992). *Equality requires everyone to have the same resources. On the other hand, equity requires everyone to have the opportunity to access the same resources. The aim of equity-focused policies is not to eliminate all differences so that everyone has the same level of income, health, and education. Rather, the goal is to eliminate the unfair and avoidable circumstances that deprive people of their rights* (UNICEF, 2010: 2). Thus, whereas equality is about the equal sharing of goods and services or a state of being equal, equity is about fairness, and it may be judged fair to be unequal. It may be considered fair that an underprivileged group in society receive a greater portion of resources (Culyer and Wagstaff, 1993, Donaldson et al., 2005, Jan and Wiseman, 2011, McIntyre et al., 2002, Mooney, 2000, Whitehead, 1992). This is often described as positive discrimination (see vertical equity below), and examples such as the use of resource allocation formulae in Canada, Australia and South Africa, and user fee exemptions in Cambodia represent vertical equity measures aimed at distributing resources to reflect the higher health needs of disadvantaged population groups such as indigenous and rural residents (Jan and Wiseman, 2011, Donaldson et al., 2005, McIntyre et al., 2002).

While distinguishing between equity and equality is necessary, Mooney (1994) observes that equity often has certain aspects of equality associated with it. In an attempt to define equity therefore, it is important to sort out these relevant attributes of equity. This can be done using two approaches. The first is the

equitable distribution of resources. In this connection, Mooney argues that the judgement in relation to what is fair is to be made in terms of whether the resultant distribution is fair. This is called 'distributive justice'. Here, if the concern for planners and policy makers is about distributive justice of health care with respect to health, then they would be interested in seeing how health is distributed in a society or community. A second approach involves the view that it is the mechanisms and procedures involved in deciding on the distribution that need to be judged to be fair. Taking this stance implies that whatever distribution of the resource emerges is by definition fair, since it was arrived at through a process deemed to be fair. This second approach is termed 'procedural justice'. In essence, the first approach is about fairness of the outcome and the second is about fairness of the process. And although these two are not necessarily mutually exclusive, they do reflect very different and importantly different ways of viewing equity and fairness (Mooney, 1994, Donaldson et al., 2005).

2.2.1 Philosophical theories of equity

Another way to unpack the concept of equity is to look at it from the point of view of philosophy, by exploring how differently philosophers have articulated the concept. The following paragraphs provide a helpful summary of three different philosophical theories of equity and fairness (Rawls, Egalitarian and Libertarian) drawn from literature (Donaldson et al., 2005, Folland et al., 2013, Wagstaff et al., 1989, de Jong and Rutten, 1983, Culyer et al., 1981).

An earlier theory, other than the two drawn from Culyer et al. (1981) below, is Rawls' 1971 theory of justice, which tended to think that fairness and justice could only be achieved from an impartial stance (Mooney, 1994, Folland et al.,

2013, Donaldson et al., 2005, Wagstaff et al., 1989). According to Rawls, *in order to achieve impartiality, individuals should be placed behind a 'veil of ignorance' such that they did not know what their own position in society would be. They were then asked which sort of society they will choose to live in. The society that emerges is one which gives the greatest advantage to the least well off in society. The impartiality in this context leads to 'maximising' of the 'minimum' position and it is arrived at through the impartiality created by the 'veil of ignorance', the so-called 'maxi-min' solution* (Mooney, 1994: 67). Although this theory represents a major breakthrough in the thinking about a just a society it is criticised (e.g. Taylor, 1989, cited in Mooney, 1994: 68) for being silent on the fate of other groups in society. In the context of health, the theory seems to suggest that the most severely ill should be given priority but it does not say to what extent they should be given priority and at what cost to the general society. Another criticism of Rawls' theory is that insofar as there are different theories and hence solutions to equity objectives in health care, what criteria would planners and policy makers rely on to choose between them? Here, Mooney (1994) argues that some sort of societal preferences ought to be what decides between competing equity theories and solutions. In spite of these criticisms the fact remains that in countries such as the USA and most of Sub-Saharan Africa where inequalities of access to health care are high (Martinez-Vazquez, 2001, Odaga, 2004, Cisse et al., 2007) it is necessary to discriminate unequally (but equitably) in favour of vulnerable groups when it comes to the allocation of health care resources.

Aside from Rawls' 'veil of ignorance' theory, two basic types of health systems, egalitarian and libertarian systems (Culyer et al., 1981), are relevant to the

objectives of this thesis. The egalitarian perspective emphasizes fraternity. This view espouses a collective philosophy of social justice and perceives social unity as a good thing in its own right, and therefore pursues community health as opposed to individual health (Wagstaff et al., 1989, Culyer et al., 1981, Donaldson et al., 2005). This theoretical position is in tune with the British NHS-type publicly tax funded health system where health care is provided according to 'need' (Culyer and Wagstaff, 1993). Egalitarians also interpret equitable health care financing system as one in which the payment for health care is based on ability to pay. Those who can pay more for health care do so in the spirit of fairness (Wagstaff et al., 1989, Wagstaff and Van Doorslaer, 2000, Donaldson et al., 2005, Culyer et al., 1981). On the delivery side, this view opens up a set of equity objectives that point to the direction of equality. For McIntyre (1997), the egalitarian view is the strictest definition of equality and would imply an equal share of opportunities and resources to all in a society. Two of these goals; *equal treatment for equal need*, and *equality of access*, are clarified later in this section.

Libertarians on the other hand value consumer sovereignty and market forces. To the libertarians, fairness means that people are allowed to use their income and wealth to access additional health services (than their fellow citizens in similar circumstances) if they so choose (Culyer et al., 1981). This mirrors the individualistic nature of the libertarian school of thought. This viewpoint leans towards a mainly private health care sector, whereby health care is provided on the basis of willingness and ability to pay. It requires that state involvement in the health sector be restricted to the provision of minimum standard of care for the poor (Wagstaff et al., 1989, Culyer et al., 1981). The limited role of private

health insurance in promoting universal coverage, explored later in this chapter, illuminates in practical terms what the libertarian theory stands for. As indicated earlier, however, there are many examples in which the health care system is a mix of the libertarian and egalitarian values and hence, depending upon the balance of this mix, the importance of equity will differ between health care systems.

2.3 Equity of health care

In addition to the philosophical perspectives of equity, in the specific context of health care, equity is often interpreted very loosely as providing a basic level of health services to everyone (Jan and Wiseman, 2011). The problem with this definition however, is that it is ambiguous and unhelpful when attempting to implement some policy on equity in health care (Jan and Wiseman, 2011, Donaldson et al., 2005). This means that a clearer and a more specific equity criterion is needed. In the quest for this specific criterion, horizontal and vertical equity are two different operational definitions of equity in health care that have dominated the literature. The following sub section explores these two operational definitions of equity in an attempt to properly locate and shape the direction of this study. Table 2.3 presents a summary of possible dimensions of health equity in relation to either horizontal or vertical equity.

Table 2.3 Operational definitions of equity

Horizontal equity criteria	Vertical equity criteria
1. Equal access to health care for equal need,	1. Unequal treatment for unequal need,
2. Equal use of health care for equal need,	2. Progressive financing based on ability to pay.
3. Equal health care expenditure for equal for equal need.	

Based on Donaldson et al. (2005: 80), Jan and Wiseman (2011) and (Whitehead, 1992).

2.3.1 Horizontal equity

Horizontal equity is about ensuring that people in the same circumstances are treated the same. The British NHS and the Canadian health systems have been influenced by this horizontal equity objective (Donaldson et al., 2005). Three common ways of defining horizontal equity in health care are summarised as follows (Jan and Wiseman, 2011, Whitehead, 1992, Donaldson et al., 2005):

Equal health expenditure for equal need implies that if two people have the same level of need they should be allocated the same amount of health care expenditure (Jan and Wiseman, 2011: 253). The main advantage and perhaps the reason for its prolific use is the relative ease with which inputs can be measured and monitored (Donaldson et al., 2005). However it has limitations in the sense that it says very little about the health services received and how that care affects health.

Equal access for equal need is defined in terms of *people with the same level of need who face the same level of barrier to health care taking into account distance, cost and any language or cultural issues that may limit access to services* (Jan and Wiseman, 2011: 253). Unequal access may arise in a variety of ways. An extreme example is perhaps the situation where people are prevented from using health services because of their lack of income, race, sex, age, religion, or other factors not directly related to the need for care, or migrant workers may be excluded from insurance-based health care services (Whitehead, 1992). Inequities in access also arise when there is uneven urban-

rural distribution of health resources. As rural areas are disadvantaged in this respect, such unequal distribution means that health care is least available to the neediest group of the population (Tipping et al., 1994, Whitehead, 1992, Peters et al., 2008). Financial, organizational and cultural barriers prevent people who may want to access health services such that, although they may have the right to health care in theory, in practice, they may not be able to access services. Transport costs for example may limit poor people's access to health care (Phadke, 1996, Prescott, 1997, Aday, 1975, Aday and Andersen, 1974b). The NHIS has a horizontal equity element in its design reflected by the recruitment of 'Community Agents' tasked to register members, distribute membership ID cards as well as help in the renewal of membership at the community level. The purpose of this arrangement is to ensure that rural residents do not incur additional costs in transport and time when accessing NHIS services. However, questions have been asked about the effectiveness of Community Agents given that they are not adequately resourced to do their work effectively. If they turn out to be ineffective, what will be the fate of rural residents in terms of equal access? Certainly, travelling to Jirapa for services has cost implications, and for the poor this might amount to catastrophic spending that might lead impoverishment. Other horizontal equity issues that are of interest to this study are provider-related. For example, are there health centres? Even when there are, are they adequately staffed and well equipped to provide good quality care to users in rural areas? Where these are lacking or in short supply users would be referred to higher-level facilities. The challenge facing the rural poor is that taking up referral might lead to catastrophic spending for households. These are the sorts of questions being asked in this

study, and the answers will help ascertain the extent to which the horizontal equity objectives of Ghana's health system as a whole being achieved.

2.3.1. Equal utilization and equal access

While 'access' is explored in detail in the next chapter, it is necessary in the context of horizontal equity to briefly explain an important distinction between equal utilization and equal access. , 'Equal utilization for equal need' requires that policy-makers standardise medical practices for given conditions as well as ensuring compliance. This means that not only do those with the same level of need have the same level of access, but that they actually use the same amount of services (Donaldson et al., 2005, Jan and Wiseman, 2011, Whitehead, 1992). 'Equal access for equal need' on the other hand is about providing individuals with the opportunity to use needed health services (access as empowerment conceptualised by McIntyre et al., 2009). Here, individuals may choose to comply with treatment to different degrees and this may result in different patterns of utilization, even among those with the same health needs. Religion, culture, gender, age and education all have an influence on people's level of willingness or pattern of health care use (ibid). It does not rely on any form of force, as equal utilization might, and as such it is not elitist, according (Donaldson et al., 2005). They argue, as a result that equality of access is the superior form of expression.

However, measuring equality of access for different communities is problematic because it requires that travel distance to facilities and services is the same; that transport and communication services are same; that waiting times are the same; that patients are equally informed about the availability and effectiveness of treatments and that charges are the same and ability to pay is the same. As a

result of these difficulties, health planners will often resort to 'use' as an indicator of access to health care (Jan and Wiseman, 2011, Wiseman, 2011, Donaldson et al., 2005). In general, the difficulties in measuring equality of access inevitably mean that it can be only partially measured or, at best approximated, and it is common to find equality of utilization being used as a proxy measure (Donaldson et al., 2005, Goddard and Smith, 2001, Jan and Wiseman, 2011). In this study, utilization of services is used as an indicator of access to health care services. This study argues whether different levels of supply of health care between urban and rural areas results in differences in enrolment in the NHIS and uptake of health care in these localities. It is necessary to ask this question because the inability of rural residents to access care due to long distance to health facilities, travel related costs to service points, and perceptions of poor quality of care arising from inadequate staffing may deter residents from enrolling in the scheme or using health facilities.

2.3.2 Vertical equity

In contrast to horizontal equity, vertical equity is about treating individuals or communities who are unequal differently in a way that is seen to be commensurate with their relative disadvantage. In other words, it is about trying to lessen the gap between the rich and the poor by giving the latter preferential treatment (what Whitehead, 1992 describes as positive discrimination). It has been preferred as a form of positive discrimination to promote equity in health services (Donaldson et al., 2005, Jan and Wiseman, 2011, McIntyre et al., 2002, Mooney, 1993, Mooney, 2000, Whitehead, 1992). To illustrate this point Jan and Wiseman (2011) have used the example of a village that has a mix of rich and poor people; an outbreak of disease occurs and both rich and poor

groups are afflicted. As a horizontal equity measure it will be sensible to make drugs available to all of those afflicted, irrespective of their income status. However, upon closer assessment, one might begin to notice that the well-off groups are doing much better as they have time and money to visit the health facility, adhere to therapy and consequently recover more speedily and not suffer many complications. At this point vertical equity measures will be required; the poor and disadvantaged rural residents may need to be given more help and one option is to specifically target poorer individuals in the community by supplying them with free or subsidized medicines.

There are various policies in health care that aim to provide a disadvantaged group with a greater share of available resources. Here, reference is made to Canada and Australia where weightings are used to distribute health resources to favour disadvantaged groups (Donaldson et al., 2005). Similarly, McIntyre et al. (2002: 31) explored the use of resource allocation formulae in pursuit of vertical equity goals in South Africa and concluded that equity does not translate into everybody receiving equal share of resources:

While there are considerable debates around the concept of equity and which definition of equity is most appropriate, the vertical approach is arguably the most appropriate means of effectively and speedily achieving equity gains in South Africa given that it recognizes that different groups within our society have very different starting points and therefore require differential treatment.

In this case, equity means that certain disadvantaged groups receive a greater share of funding based on the weightings used. The financial objective of

vertical equity is usually about ensuring that payment for health care reflects users' ability to pay. McClelland (1991) explains explicitly the rationale for this concern. First, because of the uncertainty and unpredictability of ill health, the consequences of paying out-of-pocket for health care can be catastrophic for poor households. As a result, protection against catastrophic spending owing to ill health is desirable. Secondly, given the important relationship between the consumption of goods and services and health, the removal of financial barriers which impede consumption is also necessary. The concept of financial equity therefore, needs to be considered in two phases. The first is the achievement of equity based on ability to pay, and the second is that, within groups of equal financial status there is actual payment on fair terms, meaning that attention is paid also to horizontal equity.

Important questions in relation to the pursuit of vertical equity in health care finance are: how should ability to pay be defined? Although the informal sector contributions are determined on the basis of variations in poverty levels of districts, are flat rate contributions progressive and equitable? Are some poor people failing to use health care services because of the premiums? In the context of the NHIS in Ghana, the important question often asked is, are the NHIS premiums based on ability to pay? Are there appropriate mechanisms to adequately identify vulnerable groups to benefit from exemptions, such that some indigents are not unintentionally excluded from the scheme (Schieber et al., 2012b, Witter and Garshong, 2009c, Apoya and Marriott, 2011, Averill and Marriott, 2013a)? In devising a health care financing scheme of fair contributions it is important to take into consideration the different payment mechanisms that can be employed. A tax-based system of financing is usually

considered to be more progressive. There are however, a variety of taxes (general income tax, local income tax, payroll taxes and indirect taxes) and some will be more progressive than others. A tax-financed health care system or a social insurance system would normally be expected to achieve some degree of vertical equity. Those health care systems that rely heavily on large out of pocket payments for finance are more likely to require regulation (e.g. means testing) to protect low-income and high-user groups satisfactorily (Donaldson et al., 2005). Other examples include exemptions on user fees and progressive payment scales for social health insurance levels. Such policies that target disadvantaged groups in this way represent the application of vertical equity. McIntyre et al. (2002), in reference to South Africa have argued that in spite of considerable debates around the most appropriate way to define the concept of equity, the vertical approach is arguably the most appropriate means of effectively and speedily achieving equity, given that it recognises that different groups within the society have different starting points and therefore require differential treatment.

2.4 Equity and health care financing for Universal Health Coverage (UHC)

This section operationalizes the concept of universal health coverage in some detail; the progress made thus far but also the challenges of implementing UHC in low-income countries (LICs). The various health financing systems adopted by governments in pursuit of UHC are also explored in this section. An important highlight of this review is the consensus that countries that have

achieved universal coverage have done so through mixed financing. The question then is, can LICs, particularly those in Sub Saharan Africa achieve universal coverage through mixed health financing?

The history of UHC is traced back to the emergence of organized health care in the 19th century, in response to calls for the implementation of social security systems. The concept was first started in Germany under Chancellor Otto von Bismarck in 1883, and later spread to other parts of Europe including Britain, France and Sweden after the Second World War (Bärnighausen and Sauerborn, 2002, Savedoff et al., 2012, Ron et al., 1990). Then in 1948, the concept of UHC was implicitly enshrined in the WHO constitution which recognized the enjoyment of a good standard of health as a fundamental human right, devoid of discrimination against race, religion, and political belief, economic or social condition (WHO, 1948). This fundamental human right was reiterated in the “Health for all” declaration of the Alma Ata conference on primary health care in 1978 (WHO, 1978a). In 2005, the concept of UHC was once again acknowledged and for the first time clearly endorsed by the World Health Assembly as the goal of sustainable health care financing (WHO, 2005c). The World Health Assembly resolution (WHA58.33) explicitly called on governments to implement health care financing systems based on prepaid and pooling mechanisms aimed at achieving UHC (WHO, 2005c). The 2008 World Health Report reiterated prepayment and pooling systems as essential instruments for UHC. The report emphasised the need for contributions to resource pools to be based on ability to pay, and such funds should ensure that services are available, accessible and produce quality care for those who need them, without exposing them to the risk of catastrophic expenditure (Van

Lerberghe, 2008). The 2010 World Health Report went a step further to stress to the need to ensure efficiency and equity in the pursuit of UHC. It advocates for countries to raise sufficient funds, reduce out-of-pocket payments services, and improve efficiency and equity (WHO, 2010a). It seems obvious from the aforementioned reports that improvement in the health care financing function of a health system has been the central focus of the concept of UHC. The 2013 World Health Report built on earlier research work which led to a call for further research evidence to facilitate the transition of countries towards UHC (WHO, 2013b). A broad consensus regarding the importance of UHC has grown progressively since the 58th World Health Assembly resolution in 2005. Currently, major international institutions such as United Nations agencies, development banks, bilateral donors and foundations are playing central roles in UHC concept-framing, capacity-building as well providing financial support (WorldBank, 2014, WHO, 2015c).

Additionally, various high-level consultations and conferences have helped in shaping understanding of the challenges faced and formed opinion around a number of calls for action, including the Bangkok Statement on Universal Health Coverage in January 2012, the Mexico City Political Declaration on Universal coverage in 2012, and the Tunis Declaration on Values for Money, Sustainability and Accountability in the Health Sector in July 2012. In 2012 too, United Nations General Assembly passed a resolution requesting governments *“to accelerate the transition towards universal access to affordable and quality health care services.”* This move confirmed not only the extensiveness of consensus regarding the urgency of action on UHC, but also the level of concern about the state of the world’s health systems (WHO, 2015c: 6).

Many countries have embraced the UHC concept in a variety of ways. For most high-income countries, commitment to the core UHC idea that everyone can obtain the quality, essential health services they need without suffering financial hardship when paying for them, has underpinned health-system design and development for decades (WHO, 2015c, Vega, 2013). The BRICS countries, including Brazil, the Russian Federation, India, China and South Africa, have all embraced health system reforms aimed at extending, deepening, and in some cases improving health service coverage for their populations while at the same time finding viable options to increase financial protection for those availing themselves of health services (Marten et al., 2014). For others, UHC is very relatively new, driven by a combination of factors, including increase prosperity and fiscal expansion, as well as increased popular demand and the political awareness and commitment that comes with it (WHO, 2015c). Currently, UHC is a core component of the Sustainable Development Goals (Goal 3.8 of the SGDs aim to “*achieve UHC, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all*”). This suggests a high likelihood that the mobilization of resources for UHC-oriented health system strengthening will increase (UN, 2013, Touraine et al., 2014, Vega, 2013).

2.5 Operationalizing universal health coverage

Universal Health Coverage means that “*people are receiving the health care they need, including health initiatives designed to promote better health, prevent illness, and provide treatment, rehabilitation, and palliative care of sufficient quality to be effective while at the same time ensuring that the use of these services does not expose the user to financial hardship.*” (WHO, 2010a:2). UHC

is a critical component of the new Sustainable Development Goals (SDGs) which include a specific goal: *“Ensure healthy lives and promote wellbeing for all at all ages”*. Within this health goal, a specific target for UHC has been proposed: *“Achieve UHC, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all”* (WHO, 2010a: 2). Thus, the SDGs and UHC are essentially about improving equity, with a special interest focused on the progress among the poorest people, women and children, and people living in rural places (WHO, 2015c).

Embodied in the definition of UHC above are three interlinked coverage dimensions of the concept emanating from different disciplinary perspectives. It is therefore important to explore these three dimensions for a clearer understanding of the various interpretations and representations of the concept. The three coverage dimensions, linked together by the view of health as a legal human right, include, population coverage, financial protection and access to health services (Abihiro and De Allegri, 2015, WHO, 2015c, WHO, 2013a).

2.5.1 Universal health coverage as a legal right to health

Drawing on various international covenants and treaties such as the *“Right to Health”* (UN/WHO, 2007) and the *“convention on the Elimination of all forms of discrimination against women”* (UN, 1979), some of scholars have argued that the concept of UHC implies the existence of a legal framework to ensure that every resident has access to affordable health care (Stuckler et al., 2010, Scheil-Adlung and Bonnet, 2011, Bárcena, 2014). Here, UHC is presented in the image of the *“health for all”* goal of the Alma-Ata Declaration (Stuckler et al., 2010, Averill and Marriott, 2013a, Forman et al., 2013). Within this legal

framework all states that ratified the convention on the “right to health” (UN/WHO, 2007), are mandated to create legal entitlements to health care for all their residents (Bárcena, 2014, Kingston et al., 2010a, Yamin and Frisancho, 2015). To achieve this objective implies that national laws need to be established (Kutzin, 2013). As of 2013, as many as 86 UN member states had not established constitutional provisions that legally recognized the right to health, and even states that have constitutional provisions still have a lot of work to do to ensure that this constitutional provision is implemented (Wheeler, 2013). It has also been pointed out that even the state-centered view of the “right to health” draws on a false assumption that all people have legal nationalities. Commentators argue that this false assumption has led to the exclusion of some migrants, especially illegal immigrants from accessing formal health care in countries where they are resident (Kingston et al., 2010a). In reference to the United States for example, President Obama had to come out in public to specifically clarify to anti-Obama care protestors that illegal immigrants would not be benefitting from the country’s universal health care scheme. The right to health for all argument is even trickier in the context of LIMCs, where the fiscal space for health is weak. In these countries, sufficient revenue to finance health care for their legal citizenry alone poses a serious challenge (McIntyre and Meheus, 2014, Borghi et al., 2013, Schieber et al., 2012b). Thus, the definition of the right to health for all (including non-nationals) on the assumption that individual states have the economic ability and willingness to guarantee it, has the potential to exclude non-nationals from universal health schemes. This makes it important that current debates on UHC pay serious attention to the ways by which the rights to health care of stateless

individuals can be incorporated into the framework of UHC (Abihiro and De Allegri, 2015).

Given the financial constraints of enforcing the right to health for all objective of UHC in LMICs, a special case is being made for international financial support for health to strengthen the right to health component of UHC (Ooms, 2014, Ooms et al., 2014). They have argued that this can be made possible through the establishment of a global fund to finance UHC (Ooms and Hammonds, 2014). In this respect, health will become a global public good financed through a global fund (Chen et al., 1999). The idea of creating a global fund for UHC is also in recognition of the transnational pattern of emerging global health problems (the recent Ebola outbreak in West Africa is an example) and the global corporation needed to deal with such transnational health problems (Frenk et al., 2014). According to Ooms and Hammonds (2014), preliminary findings on the feasibility of establishing a global fund for UHC have shown conflicting expectations and interests between the potential financing bodies and beneficiary countries. Irrespective of the final outcome however, the rights-based approach to UHC represents a shift from the concept of international health in which international assistance for health is treated as a form of charity given to populations in resource-poor countries, towards a global health point of view driven by the cosmopolitan ethical view that states need to assist one another on the basis of humanitarian responsibility and solidarity (Stuckler and McKee, 2008, Lencucha, 2013, Frenk et al., 2014). This cosmopolitan view seems to have the potential of raising the much needed international support towards the implementation of UHC within its broader dimensions currently being pushed forward by WHO and others (Abihiro and De Allegri, 2015).

2.5.2 Population coverage as a dimension of universal health coverage

Some scholars, drawing on the rights to health perspective, interpret UHC to mean that people have “equal or same entitlements” to the benefits of a health system (Averill and Marriott, 2013a, McIntyre, 2012a). This reflects the notion of universal health coverage of population under publicly funded health system (WHO, 2010a, Maeda et al., 2014). Universal health coverage is defined in relation to people’s rights to health, as the absence of systemic exclusion of vulnerable population groups from public funded health systems and the ability of all residents to enjoy the same entitlements or benefits of public health services, irrespective of their nationality, race, sexual orientation, gender, socio-economic status or place of residence (McIntyre, 2012a, Fried et al., 2013, O’Connell et al., 2014, Averill and Marriott, 2013a, WHO, 2010a, UN/WHO, 2007).

The concept of equity is embedded in most conceptual definitions of universal health coverage (WHO, 2010a, Kutzin, 2013, McIntyre, 2012b, Mills et al., 2012b, Rodney and Hill, 2014). An example is the idea of income and risk cross-subsidization whereby the rich cross-subsidize the poor, whilst the healthy cross-subsidize the sick (McIntyre, 2012a, Borghi, 2011, Goudge et al., 2012b, Ron et al., 1990). While the desirability of equity and UHC are unquestionable some scholars have cautioned that care must be taken in the pursuit of these objectives to avoid creating a situation where official entitlements will be offered to all people even when the existing health system may not be able to meet the health demands of the population (Hickey and Du Toit, 2007, Abihiro et al., 2014, Devereux and Sabates-Wheeler, 2007). Hickey and Du Toit (2007) refer to this practice as adverse incorporation or inclusion.

2.5.3 Access to services as a dimension of universal health coverage

From a public health point of view, a UHC package should include a comprehensive spectrum of health services in line with the WHO's definition of UHC as access to promotive, preventive, curative, rehabilitative and palliative health care (WHO, 2005c, WHO, 2010a, WHO, 2015c). However, the funding difficulties faced by poor countries brings up the question of feasibility and sustainability. In this regard, some research argues that the focus should be on the provision of essential health services that cover priority health needs for which there are effective low cost interventions (Sachs, 2012, Schieber et al., 2012b). For others, priority should be on disease-specific interventions in line with the health-related Millennium Development Goals (Kieny and Evans, 2013, WHO, 2013a). Proponents of the effective expansion, disease-specific and preventive interventions approach insist that it can improve health and reduce health system costs at the same time. But others are in favour of broader efforts aimed at system-wide strengthening because the disease-specific interventions approach is seen as a way of creating fragmentation of the health system (Adam et al., 2012, Rao et al., 2014). Yet, there is another view that prefers the provision of primary health care to all, as a feasible and sustainable UHC approach (SDSN, 2014, Stuckler et al., 2010, WHO, 2008b, Yates, 2009, WHO, 1978a, WHO, 2010a). The latter is of interest to this thesis for a variety of reasons. First of all, it falls in line with the objective of the NHIS to ensure that every resident of Ghana has access to basic quality health care without financial hardship (NHIA, 2003, NHIA, 2012d). This approach also echoes the WHO Declaration of Alma-Ata 1978, which entreats member states to ensure the implementation of all the new Sustainable Development Goals (SDGs),

which include a specific health goal: “ensure healthy lives and promote wellbeing for all at all ages”. Within this health goal a specific target for UHC has been proposed: “achieve UHC, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all” (WHO, 2015c).

Because access to quality health services is a key tenet of universal health coverage, an important question is; how many people around the world currently have access to basic health care services? Lack of access continues to be a major concern, and recent evidence suggest that at least 400 million people are currently not receiving at least one of seven essential services for MDG priority areas¹ (WHO, 2015c). From this statistic, inequities in access to health services persist both within and between countries. Wealth, gender, age and geographical location are known to play a role in determining whether and to what degree people benefit from quality, essential health services (Aday and Andersen, 1974b, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Jacobs et al., 2012, McIntyre et al., 2002, Donaldson et al., 2005, WHO, 2015c). This is reflected in coverage figures for a set of indicators reported by the WHO recently. For example, in low- and middle-income countries, coverage levels for Antenatal Care (ANC4) and Skilled Attendance at Birth (SAB) decline steeply in poorer populations. The median ANC4 coverage is less than 50 percent of women in the poorest quintile of households in selected low- and middle-income countries, compared to a median of 83 percent for women in the richest quintile.

¹ The total estimate of 400 million includes all women whose demand for family planning is not met, pregnant women who did not make at least 4 antenatal visits (minus 38% to account for unintended pregnancies), infants who did not receive 3 doses of DTP-containing vaccine, HIV-positive adults and children not receiving HIV treatment, adults with new cases of TB not receiving TB treatment and children 1–14 years not sleeping under an insecticide-treated bed net (ITN)).

Similarly, SAB coverage shows a median of 96% of live births in the richest quintile covered, compared to just 58% of live births in the lowest wealth quintile. This disparity is even more pronounced in low-income countries, with median coverage rates of 34% in the poorest quintile as compared to 89% in the richest (WHO, 2015c).

2.5.4 Financial protection as a dimension of universal health coverage

Universal health coverage means equity of access and protection against the economic consequences of ill health (Palmer et al., 2004, Xu et al., 2003, WHO, 2005a). The key to protecting people from financial hardship is to ensure first and foremost, that the largest share of funds for the health system is prepaid. It is also important to ensure that the barriers to the redistribution of these funds are reduced to the minimum, and that out-of-pocket (OOP) at the time of use is also reduced to reasonable levels (WHO, 2015c). Out-of-pocket payment (OOP) means *“direct payment made to health care providers by individuals at the time of service use”* (WHO, 2015c: viii). OOP is the most regressive system of financing health care (Borghi, 2011, McIntyre et al., 2005, Mills, 2007, Mills et al., 2012a, Mills et al., 2012b, Abihiro and De Allegri, 2015, Akazili et al., 2012, Akazili et al., 2011a, WHO, 1978a, WHO, 2005a, WHO, 2013a, WHO, 2015c, McIntyre et al., 2013, WHO, 2010a, Donaldson et al., 2005), and using OOP payment to fund health systems has a number of disadvantages, but one of the most important of them is that it prevents the poor in particular from seeking care when they need it (WHO, 2015c, WHO, 2010a, WHO, 2005a, WHO, 2005c, WHO, 2013b, ILO, 2008a, Apoya and Marriott, 2011, Averill and Marriott, 2013a). The WHO uses the level of OOP payments to monitor the degree to which people lack financial protection. For example, in 2013, 32% of

total global health expenditure came from OOP payments, representing a reduction from 36 percent in 2000 (WHO, 2015c). While this reduction in OOP payment is welcome news, the 2013 figure is nonetheless an indication that in many countries OOP payments are still too high; below 20 percent of total health expenditure is usually a good indication of reduced risk of catastrophic health spending (WHO, 2015c, WHO, 2010a). The two most commonly used indicators of financial hardship are catastrophic health expenditure, and impoverishing health expenditure.

One of the ways to define catastrophic health expenditure is that it exceeds 25% of total household expenditure (WHO, 2015c). It has to be clarified however that, catastrophic health expenditure does not necessarily lead to impoverishment in the sense of pushing a household below a poverty line. Well-to-do households, for example, might be able to pay expensive medical bills, and yet do not to forgo consumption of basic household needs such as children's schooling. Impoverishing expenditure, on the other hand, is expenditure that pushes households into poverty or the extreme form of it. From the World Bank point of view, impoverishing expenditure occurs when household consumption slips below the international poverty line of US\$ 1.25 or US\$ 2.00 per day per capita, at purchasing power parity (WHO, 2015c, WorldBank, 2015).

To effectively track financial protection, reliable household expenditure surveys are required to help establish the estimated number of people affected as a share of the total population (headcount ratio). The WHO observes that headcount indicators are a useful estimate, yet they do not capture the magnitude of impoverishment, or distinguish between spending much more

than 25% of total household expenditure and spending just marginally more. They also do not take account of people lacking financial protection who are deterred from seeking health care because the cost of doing so is simply unaffordable (WHO, 2015c). Effective universal financial protection can, therefore, be attained not only if the population does not incur substantial OOP payments and critical income losses due to payment for health care, but if there are no fears of and delays in seeking healthcare due to financial reasons; no borrowing and sale of valuable assets to pay for healthcare, and no detentions in hospitals for non-payment of bills (WHO, 2010a, McIntyre, 2012a, Abihiro et al., 2014, Cleary et al., 2013, Dekker and Wilms, 2009, Kruk et al., 2009, Leive and Xu, 2008).

The concept of UHC is therefore based on the notion of equity in financing, in which contributions are based on users' ability to pay and not on whether the person falls ill (WHO, 2005a). Since 2005, the World Health Organization World Health Assembly has been urging member countries to develop health financing systems that aim to achieve universal coverage (WHO, 2005a, WHO, 2010a, WHO, 2015c, WHO, 2013a). Currently, many countries are considering sustainable ways of financing or sustaining universal coverage. Some of these financing options include general taxation, through health insurance schemes or a mix of these sources (Borghi, 2011, ILO, 2008a, Maeda et al., 2014, Donaldson et al., 2005, WHO, 2005a, WHO, 2010a). International comparisons of equity in health care finance, the degree to which a health care financing system is progressive, proportional or regressive depends on a mix of financing sources. As a general rule, those systems based on social insurance and which rely more on direct and general taxes tend to be more progressive. Those that

are based on private insurance and rely more on direct user payments tend to be more regressive. Donaldson et al. (2005: 256-257) reach the following broad conclusions about equity and health care financing:

Regarding fairness with which health care systems are financed, largely publicly financed systems in developed countries, especially those predominantly tax-financed, are the most successful at meeting equity objectives... Predominantly private health care systems appear less equitable. While public finance cannot ensure equity in principle and private finance does not preclude it, in the real world it is clear that publicly financed systems are likely to do better in the pursuit of equity. This may well be because the reason that many health systems are public is precisely because of the importance placed on equity objectives.

There is a general agreement that, aside from out-of-pocket payments, Private Health Insurance (PHI) is another regressive and less pro-poor form of health care financing. The following sub sections provide reviews of five health financing strategies, highlighting the extent to which these are regressive, proportional or progressive in relation to the equity objectives of health systems seeking to achieve universal health coverage.

2.5.3.1 Private health insurance (PHI) is pro-rich and provides limited coverage

Private health insurance is defined as *a set of health services that are financed by a third-party through private non-income related payments called premiums.* Enrolment in PHI is voluntary (Ozawa, 2011: 161). In the context of universal

health coverage, private health insurance does two main things: it provides complimentary cover for high-cost services, or a broad range of health care providers, not included in the statutory scheme. PHI can also provide supplementary coverage for faster access and increased consumer choice in systems where waiting times for specialised care are substantial (Ozawa, 2011, Borghi, 2011). It has to be mentioned however, that on average, PHI represents a small share of total health expenditures among OECD countries. The USA however, on the back of its libertarian system is the only OECD country where PHI represents more than 35 percent of total health expenditure (Ozawa, 2011).

Private health insurance (PHI) plays a limited role in health care financing in low and middle income countries. Only 11 of the 154 developing countries funded more than 10 percent of their health care through PHI (Averill and Marriott, 2013a). Some research (Averill and Marriott, 2013a, Berkhout and Oostingh, 2008, Borghi, 2011) observes that while PHI can increase financial protection and access to quality health services for the well-off, without subsidies, the poor cannot afford to pay PHI premiums. PHI does not support risk sharing, it rather employs the cream-skimming strategy - a practice where insurance policies are designed to target people with lower-than-average risks and exclude those with high risks. PHI can also reduce the degree of equity of the health system as a whole by removing well-off groups from pooling arrangements, as in the case of Chile (Kutzin, 2000), and by widening the disparities in the amount and quality of care available to different population groups whereby a small elite have access to extensive private health services and resources while the vast majority is dependent on under-resourced and overextended public health services. There is evidence that in Africa PHI has had very limited success and

that in South Africa these schemes cover only a small fraction of the population. PHI has also caused the fragmentation of risk pools, increased expenditures as well as increasingly capturing tax subsidies (McIntyre et al., 2005). It deprives vulnerable groups including women, the elderly and people living with HIV access to care. South Africa and the United States are the only countries that rely heavily on PHI (accounting for 42% and 32% of total health spending respectively). Yet, neither South Africa nor the USA is close to achieving Universal Health Coverage (UHC) and they are amongst the most inequitable health systems in the world (Averill and Marriott, 2013a) .

With reference to Latin America, where PHI was introduced in the 1980s, private schemes typically cover the percentile of the population with the highest income. Low-income groups are left with existing social insurance schemes, which offer fewer benefits, or have no health insurance at all. Inequalities of this nature have been reported in Argentina, Chile, Colombia, Brazil, and Peru (Berkhout and Oostingh, 2008), and Georgia (Averill and Marriott, 2013a).

Given these concerns over the inequity and regressive nature of PHI, reliance on this system of financing health care may only widen the inequity gap between the rich and poor. There is no empirical evidence thus far to suggest that PHI on its own, or even as a main source of health financing will lead to universal coverage in low and middle income countries. On the contrary, PHI cover is generally tied to formal sector employment, targeting those who are willing and able to pay. This excludes the poor in the informal sector and compromises the equity objective of universal coverage. Secondly, PHI premiums are risk related which can make premiums very expensive for higher

risk and vulnerable groups and may result in exclusion. Thirdly, because PHI schemes are generally fragmented in small risk pools, and lack the economies of scale enjoyed by large risk pools, the objective of universal coverage is often compromised (Borghi, 2011, Ron et al., 1990). Thus, whereas PHI schemes have run alongside tax-based or SHI complementarily in developed countries, on its own, however (as observed in the case of the USA and South Africa), it is not an appropriate financing option for achieving universal coverage. In the context of LICs, PHI does not seem to be a feasible financing option as the majority of the populations in these countries are mostly poor, sick and cannot afford risk-related premiums.

2.5.3.2 Community-based health insurance offers limited coverage

Community-based health insurance (CBHI) schemes can broadly be defined as *“any scheme managed and operated by an organization, other than a government or private for-profit company, that provides risk pooling to cover all or part of the costs of health care services”* (Bennett, 2004: 147). Community-based health insurance is the most common form of health care financing in LICs (Normand and Weber, 2009a, Averill and Marriott, 2013a, Bennett, 2004, Carrin, 2003). It comes as a result of governments’ inability to reach the informal sector and rural populations, requiring communities to mobilize and secure financial protection against the cost of illness for groups of individuals and households not covered by existing insurance schemes (Borghi, 2011, Bennett, 2004). A variety of community-based health financing arrangements have emerged over the past decade, including micro insurance, community health funds, mutual health organizations, rural health insurance, revolving

drugs funds, and community involvement in user-fee management (Preker et al., 2002, Bennett, 2004, Carrin, 2003). Regardless of the arrangement, a common feature is that they facilitate explicit or implicit involvement of community members in the design and implementation process that limits abuse and fraud and contributes to trust and confidence in the scheme (Normand and Weber, 2009a, Atim, 1998, Arhin-Tenkorang, 2004b, ILO, 2008a, Bennett, 2004, Carrin, 2003).

Research has shown that community financing arrangements provide financial protection by reducing out of pocket (OOP) spending and by increasing access to health services: improved access to drugs, primary care, including more advanced hospital care (Dave, 1991, Preker et al., 2002). However, the very low and shrinking population coverage rates cast doubts over the validity of this finding (Ekman, 2004). Averill and Marriott (2013a) observe that it is possible for CBHI to provide some financial risk protection in the absence of a national health insurance scheme. However, their potential to progress toward universal coverage is limited. A number of reasons account for this assertion: enrolment is limited to a small segment of the population, with small risk pools and limited cross-subsidization (Borghi, 2011). So far, CBHI schemes cover only two million of the estimated 900 million people in Africa (Averill and Marriott, 2013a), and in Ghana, Mutual Health Organizations managed to cover only 1.1 percent of the total Ghanaian population in 2002 (Ramachandra and Hsiao, 2007). There is also evidence to suggest that although some schemes have exemption provision for indigents, these can be difficult to implement, resulting in the exclusion of the very poor groups with little effect on access to care for these target populations (Hsiao, 2001, Atim, 1998, Jütting, 2000, Arhin-Tenkorang,

2004a, ILO, 2008a, Ekman, 2004, Averill and Marriott, 2013a, Berkhout and Oostingh, 2008, Borghi, 2011).

Additionally, as observed in Ghana and Tanzania, contributions to CBHI are typically regressive due to flat-rate premiums but also because the majority of members are the rural poor (McIntyre et al., 2013, Mills et al., 2012b, Borghi, 2011). Like PHIs, CBHI schemes do not also enjoy the economics of scale of large scale pooling systems; they generate insufficient revenue and are not financially viable in the long term for that matter. CBHI would often charge low premiums and yet the cost of collecting premiums can be high. Consequently, these CBHI schemes are unable to generate the required amount of revenue to provide subsidy for the poor (Averill and Marriott, 2013a, Berkhout and Oostingh, 2008, Ekman, 2004, Carrin, 2003, Borghi et al., 2013, McIntyre et al., 2005). Thirdly, the CBHI do not have large risk pools. New evidence suggests that out of 258 schemes reviewed; only 2% had more than 100,000 members, and more than half of them had less than 500 members (De Allegri et al., 2009). With limited revenue at their disposal CBHI schemes tend to cover a limited number of services, severely limiting the financial protection offered.

Ekman (2004) argues that there is insufficient evidence that to show that CBHI can be a main source of financing primary health care in low-income countries. This is primarily because these schemes have been found to be incapable of mobilizing sufficient revenue to purchase adequate health care. There is evidence that shows however, linking fragmented CBHI schemes together could eventually lead to the achievement of universal coverage. Evidence of relatively few CBHI in Ghana, Tanzania, Burundi, Guinea Bissau and DR Congo, which

have operated sustainably for several years give the impression that CBHI can be a feasible alternative in certain contexts and situations. Such schemes, Ekman argues, have been successful on two counts: they based their contribution calculations on willingness to pay data or managed to arrive at affordable or near affordable premiums for their target populations. Other schemes were able to mobilize sufficient external funding and provided acceptable health care benefit packages for members (Arhin-Tenkorang, 2004c). Based on these experiences and analyses, fragmented CBHI schemes are unlikely to achieve universal coverage, but linking them to a national health insurance scheme will result in high cross-subsidization between the rich and the poor, young and old and between the sick and the healthy (Arhin-Tenkorang, 2004c, Normand and Weber, 2009a, Borghi et al., 2013). This is the model that Ghana's NHIS is built around (Borghi, 2011); where all the 159 district mutual health insurance schemes are overseen by the National Health Insurance Authority. In this connection, funds are pooled nationally (mainly taxes and payroll contributions) and then disbursed to district schemes for service provision. This makes it possible for richer districts to cross-subsidise poorer districts that would otherwise not have managed to raise enough funds to finance the cost of services.

2.5.3.3 Social health insurance excludes informal workers in LICs

Social health insurance (SHI) raises insurance funds from contributions by employers and their employees who fall within the scheme (mostly formal employees), and uses it to pay for health services for members (Borghi, 2011, Mills, 2007, McIntyre et al., 2005). People who are self-employed are allowed to

join voluntarily, though this type of membership is typically low (Mills, 2007). Contributions to SHI are normally progressive (Borghi, 2011). Risk pooling and premium payment arrangements are likely to mean that payment, to a fair degree, is related to income and use is related to need and are not risk-related. In Taiwan, for instance, the ratio of insurance fund payments for care to premiums is highest for the poorest population quintile (1.75) and lowest for the top quintile (0.96) (Chiang, 2005). In Egypt however, men receive three times the level of benefit as women (Gwatkin, 2004) and there variations in Thailand where some schemes cover only the worker and exclude their family members (Mills, 2007). Generally speaking however, in a typical SHI scheme, entitlement to services is usually universal and not differentiated, and contribution rates are set at a level intended to ensure that these entitlements are affordable to members (Normand and Weber, 2009a, Wagstaff, 2007, Wagstaff, 2010, Wagstaff, 2009, Borghi, 2011).

Through SHI, high-income countries (HICs) such as Germany, Luxembourg, Belgium, and France have achieved formal UHC. In low-income countries however, SHI schemes are found to exclude populations in the informal sector and the larger the informal sector the larger the coverage gap (Averill and Marriott, 2013b). In the absence of reliable income records, premiums are charged at a flat rate; mostly unaffordable to the poor. And, even though exemptions exist for vulnerable groups like the elderly, children, indigents, the disabled and pregnant women, errors of exclusion and inclusion still occur, culminating in low enrolment. According to Averill and Marriott (2013a) Tanzania achieved only 17 percent coverage after ten years of implementing SHI schemes. And Kenya's National Health Fund has been running for nearly

50 years and only 18 percent of the population is covered. Thus in LICs where the informal economy is large, Social Health Insurance alone is not an appropriate financing mechanism to adopt if the objective is to achieve universal coverage. In these countries, SHI revenue can at best offer supplementary revenues for pluralistic financing of health systems (Wagstaff, 2010, Wagstaff, 2009). In Thailand, as mentioned before, considerable progress has been made towards universal coverage through the adoption of pluralistic financing of the health system, that is, supplementing tax revenues with SHI and CHBI contributions (ILO, 2008a). Similarly, Ghana's Health Insurance Scheme relies heavily on tax funding providing 75% of its revenue supplemented with SHI informal sector contributions, grants and subsidies (Witter and Garshong, 2009a, Jehu-Appiah et al., 2011b, NHIA, 2012a).

The ILO observes that the success of SHI schemes is dependent on the generation of stable revenues, strong backing of the beneficiary population, provision of a broad package of services, participation of the social partners and redistribution between risk and income groups (ILO, 2008b). It is argued in this connection that the pioneers of social health insurance such as Germany, Luxembourg, Belgium, and France have achieved formal universal coverage as a result of strong progress in general social and economic development: the labour markets, financial markets, legislation, institutional infrastructure, and capacity to collect taxes (ILO, 2008a). In the absence of these necessary conditions, as is often the case in low income, SHI schemes can be difficult to administer and governance and accountability can be challenging (Carrin, 2002). Experiences of SHI schemes in Vietnam and China in the early 1990s showed that in the absence of health services infrastructure, human resources,

including other necessary components such as drugs and medical laboratories it made little sense to start an SHI scheme (Carrin, 2002). This observation is consistent with the central argument of this thesis where the NHIS is likened to a superstructure built on a poorly functioning health care delivery system. This may result in the provision of health care that is technically poor in quality and non-poor users who have higher expectations may be forced to select out of the public system in search of quality in private facilities.

Therefore, the challenges low income countries face in extending coverage to the often sizeable informal sector suggest that SHI as a standalone financing system towards achieving universal coverage in LICs may not be possible. Even developed countries that have achieved universal coverage have done so on the back of a mix of two or more financing mechanisms (Taxes, SHI, and PHI), and recent evidence show that most national health financing systems LMICs (Thailand, Malaysia, Sri Lanka, Brazil etc) that have made progress towards universal coverage are based on multiple options that cover disjointed or overlapping subgroups of the population (ILO, 2008a, Donaldson et al., 2005, Mills, 2007).

2.5.3.4 Tax-based financing system is mostly progressive

Tax-Based Systems, sometimes referred to as National Health Services, pay for health services out of general government revenue such as direct or indirect tax from various levels including income tax, value-added tax, corporate income tax, custom and excise tax, import and duties, among others (Normand and Weber, 2009b, ILO, 2008b, Averill and Marriott, 2013a, Borghi, 2011, McIntyre et al., 2005, Donaldson et al., 2005). These taxes are often used for various

forms of health insurance funding. Aside from financing national health services, vouchers or conditional cash benefits, taxes are used as subsidies for mixed health insurance programmes such as national health insurances, whereby government revenues are used to subsidize the poor. In addition, taxes may be used as subsidies for social health insurance, community-based mutual health and private health insurance schemes. Subsidies from government revenue might cover costs for the poor, deficits, specific services, and start-up or investment costs (ILO, 2008b). Tax-based systems are progressive in the sense that the rich pay a higher proportion of their income than the poor. In high-income countries, income tax often represents a substantial portion of the total tax revenue. In low income-income countries however, because the formal sector forms a small fraction of the working population, revenues accruing from income tax may only constitute a relatively small proportion of total tax revenue (Borghi, 2011, McIntyre et al., 2005). But there is an important variation in the progressivity of tax-based funding between HICs and LICs, and this depends on the type of taxes levied and the relative contribution of each tax to overall government revenue. In this connection McIntyre et al. (2005) observes that personal income tax is generally progressive whereas 'indirect' taxes on goods and services value added tax (VAT) and general sales tax (GST) are frequently regressive. Thus, if a high proportion of general tax revenue comes from VAT or GST, the overall tax system may be regressive (ibid). Consistent with the view of McIntyre et al., Borghi (2011) points out that VAT is regressive in most HICs owing to the fact that VAT is levied on most commodities. In contrast however, VAT has been observed to be progressive in some LICs because some

commodities that are deemed to be consumed more by poor groups are exempt from VAT.

A synthesis of recent research on the factors facilitating or hindering progress of universal financial protection in LMICs highlights the importance of tax funding or mandatory insurance contributions as a way of improving financial protection by reducing out-of-pocket payments (McIntyre et al., 2013). These studies show that countries such as Costa Rica (Vargas and Muiser, 2013) and Thailand (Tangcharoensathien et al., 2013) that have made progress towards universal coverage made explicit commitment to ensuring financial protection and access to universal coverage for the entire population, whereas in others, such as Tanzania (Borghi et al., 2013), Malawi (Chirwa et al., 2013), Nigeria (Onoka et al., 2013) and India (Devadasan et al., 2013) that adopted targeted reforms, this was not necessarily the case.

Another pro-poor element of tax-based financing is the provision of exemption schemes in both HICs and LICs. These exemption schemes are created to cover vulnerable groups such as children less than 5 years of age, pregnant women, seniors and indigents (Borghi, 2011, Donaldson et al., 2005, McIntyre et al., 2005, Witter, 2009). In the USA, Medicare and Medicaid are typical examples of public funded exemption schemes for the elderly and disabled and the poor respectively. In the UK, such exemption schemes include public-funded 'Sure Start' centres, which provide early education and child care, as well as health and family support to parents and children (Borghi, 2011). In Ghana, the NHIS exempts vulnerable groups such as pregnant women, children under 5 years of age, seniors above 65 years of age, SSNIT pensioners and

indigents from paying premiums (NHIA, 2003). It has been observed however, that, exemption schemes targeting specific vulnerable groups (such as pregnant women, children under 5 years of age, seniors) are often relatively effective. Those schemes that require means testing to identify indigents, for example, tend to be less effective due to the difficulty of appropriately assessing eligibility (Witter, 2009). For instance, the stringent eligibility for exemptions under Ghana's NHIS excludes people who genuinely cannot afford to pay the flat-rate contributions (Schieber et al., 2012b, Apoya and Marriott, 2011, Averill and Marriott, 2013a, Witter, 2008, Witter and Garshong, 2009c). McIntyre et al. (2005), drawing on a number of studies, argue that the distribution of benefits from tax-based health systems in African countries tend to benefit the rich disproportionately. This usually occurs when a major share of tax funding is allocated to large, expensive, urban-based hospitals rather than to primary care services and services in rural areas.

Other studies have observed that the mandatory system of payment allows tax-based systems to benefit from scale economies in administration, purchasing power and especially risk management, that leads to national risk pooling for the whole population and redistribution between high and low health risks, and high and low income groups (Wagstaff, 2010, Preker et al., 2002, Savedoff, 2004b). These benefits are drawn from the collective and political nature of raising and allocating tax revenues in a modern nation-state. However, this same political-economic feature serves as a weakness in terms of inefficiencies that emerge from serving multiple objectives, political pressures to serve privileged groups, ineffective management in public services, and the difficulties related to weak accountability and instability (World Bank, 2004). Additionally,

this financing mechanism is not able to meet the demand by privileged groups for more sophisticated health care or expensive amenities and forces everyone into taking the same standard of health care. This is one of the key reasons why tax-based national health insurance is not favoured in America (Ter Meulen and Maarse, 2008, Maarse and Paulus, 2003).

A synthesis of recent research shows that among the challenges confronting the implementation of tax-based schemes, the most important of them in relation to LMICs is the narrow tax base and limited organizational capacity to enforce tax compliance or prevent extensive tax evasion in these countries (McIntyre and Meheus, 2014, Saleh, 2012, Schieber et al., 2012b). Britain, Brazil, Ireland, Malaysia and Sweden have been successful because of their strong economic and institutional capacity to effectively mobilize resources and supervise the delivery of health services (Wagstaff, 2010, ILO, 2008b, Savedoff, 2004a, Carrin, 2002, Averill and Marriott, 2013a). The important question is, does Ghana have these necessary requirements to be able to effectively mobilize tax revenue and implement its national health insurance scheme and achieve universal coverage?

Funding difficulties are associated with Ghana's relatively poor fiscal space for health. According to experts (Schieber et al., 2012b, Barrientos and Hulme, 2010a), favourable macroeconomic conditions in the form of sustained economic growth, increased revenue generation, and low levels of fiscal deficits and debts are key sources of new fiscal space for any sector of the economy. Unfortunately however, the World Bank (World Bank, 2015) indicates that Ghana's macroeconomic conditions have not been conducive in recent years.

However, McIntyre and Meheus (2014) have argued that public spending on health is not dictated by a country's level of economic development; rather, it is dependent on government revenue generation. In countries where the government revenue is relatively low, a range of opportunities are available to increase that revenue without putting additional financial burden on the poor. These include improving tax compliance and reducing tax avoidance and evasion, especially by high net worth individuals and transnational companies; increasing personal income and corporate profit tax (where they are low); and ensuring that government revenue from natural resources such as minerals are maximized.

A reduction in public health spending and frequent delays in reimbursing providers might account for the poor quality of care in public facilities, which is the reason why middle and high-income earners who can pay for quality private care are selecting out of the NHIS. In the normal order of things, increases in utilization of health services caused by the implementation of the NHIS should be matched by commensurate increases in the number of health personnel and infrastructure. But because this has not happened (Schieber et al., 2012b, Jehu-Appiah et al., 2011a, Apoya and Marriott, 2011), the consequence is a health care delivery system that is not good enough to adequately support a smooth and sustainable transition of the NHIS to universal coverage. Recent evidence suggests rich segments of the population of Ghana are dissatisfied with the quality of care in public facilities as a result of increased utilization of services created by the introduction of the NHIS (Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Atinga, 2012b, Atinga et al., 2015).

2.5.3.5 Health care financing mix

While there seems to be a consensus around the view that publicly funded health care systems, particularly those largely tax-based are generally more equitable than private health care systems, Wagstaff et al. (1989) argues that the overall equity of financing universal health coverage in a country depends both on the incidence of individual financing sources as well as on their share in total health expenditure. Research shows that the mix of health care financing varies considerably from one country to another (O'donnell et al., 2008, Donaldson et al., 2005, Wagstaff et al., 1989). As already mentioned, the USA is the only industrial country that relies heavily on out-of-pocket payments and private insurance premiums for health financing (Ozawa, 2011, Donaldson et al., 2005, Wagstaff et al., 1989, Borghi, 2011). In Europe, the picture is significantly different as taxes and social health insurance contributions represent the main sources of financing health care (Borghi, 2011, Donaldson et al., 2005, Wagstaff et al., 1989).

An important distinction to stress is that in countries where general tax funding represents a higher share, these appear to be more progressive in the pattern of health financing than those depending largely on mandatory SHI. The extent of progressivity depends, however, on the details of the scheme. For example, tax-based systems implemented in Scandinavian countries rely predominantly on local income tax, which tends to be proportional rather than progressive. On the other hand, the British general tax-funded NHS tends to be mildly progressive (Wagstaff et al., 1989). The trend is the same in Asia, where countries that rely mainly on general tax funding (e.g. Thailand, Sri Lanka, and

Hong Kong) seem to have more progressive pattern of financing than those relying on mandatory SHI (e.g. Korea and Taiwan) (Mills, 2007).

In Africa, Ghana has pioneered the combination of SHI for formal sector workers with District Health Insurance Schemes in order to implement a national health insurance scheme (ILO, 2008a, McIntyre et al., 2005, Witter and Garshong, 2009c, Agyepong and Adjei, 2008, Agyepong et al., 2011, Schieber et al., 2012b). By employing multiple financing mechanisms the burden of health care expenditure is spread among a broader tax base while at the same time allowing room for cross subsidization by enrolling contributors and non-contributors in the same pool (Abihiro and De Allegri, 2015). The contributions of poor households are partly or fully subsidised out of tax and pooled donor funds, and there is risk equalisation between the individual district schemes and the scheme for formal sector workers (McIntyre et al., 2005, Abihiro and De Allegri, 2015). Thailand employed a similar strategy and achieved 97.8 percent coverage within reasonable period of implementation (ILO, 2008a, Hanvoravongchai and Hsiao, 2007, McIntyre et al., 2005, Tangcharoensathien et al., 2013). Thai universal health coverage has three main schemes: the Fringe Benefit Scheme, the Social Security Health Insurance (SSO) and the Universal Health Care Scheme (UC), (WHO, 2005b, Tangcharoensathien et al., 2013, ILO, 2008a). The Fringe Benefit Scheme covers enterprise employees, pensioners and dependents. The Social Security Health Insurance on the other hand extends coverage to private sector formal economy workers. The Universal Health Scheme offers full access to all Thai citizens who are not affiliated to either of the two schemes (ILO, 2008a).

Ghana's decision to implement the NHIS has certain benefits but also considerable challenges. The most important benefit from an equity point of view is that there is the political commitment to achieve universal coverage in an integrated health system from the outset in the shortest possible period, but an important challenge is that of sustainability. Considerable administrative, financial management and actuarial capacity is needed in order for the NHI to succeed. Additionally, in the context of a small formal sector, with those outside the formal sector only able to make limited financial contributions (about 5%), and high poverty levels, there are serious concerns about the financial viability and sustainability of the NHI scheme (McIntyre et al., 2005, Schieber et al., 2012b). It is obvious that substantial government funding is needed, but there are serious questions about the country's fiscal space for health and whether the much needed funding can be mobilized to sustain and transition the scheme to universal health coverage (McIntyre et al., 2005, Schieber et al., 2012b). Ghana's GDP growth rate has declined in recent years, inflation has gone up within the same period, and the country's external debt has hit unprecedented heights; increased debt servicing means a reduction in public health expenditure. The important question being asked is, where is the funding going to come from to expand health infrastructure, recruit and motivate health personnel to accept postings to rural areas and improve the supply of drugs and equipment? There is more on this in the form of a brief background description of Ghana's current fiscal climate in Chapter Four and a detailed discussion of the implications for increased public health spending in the discussion chapter.

Lack of capacity to coordinate disjointed or overlapping schemes has been flagged up as a potential constraint for low-income countries wishing to

implement pluralistic health financing. Empirical evidence shows that poor coordination results in gaps in coverage and access to health services, and the poor are the hardest hit (ILO, 2008a, Normand and Weber, 2009a). Implementation requires a good health care and ICT infrastructure and the availability of administrative and professional workforces to implement the programme (Peters et al., 2008, Dethier, 2009, Barrientos, 2010, ILO, 2008a). So far however, there is not enough evidence to suggest that low-income countries have the required institutions and technical know-how to coordinate fragmented and overlapping health insurance schemes. Poor ICT infrastructure is a serious challenge facing Ghana's NHIS. It has been very difficult to adequately assess the true performance of the scheme due to lack of reliable data. Enrolment data are still partly paper-processed, resulting in errors that a computer software programme would prevent.

As shown in chapter one of this work, there is extensive literature on the equity challenges facing the NHIS, most of which view the NHIS as pro-rich scheme (Atinga et al., 2015, Averill and Marriott, 2013a, Atinga, 2012b, Akazili et al., 2012, Mills et al., 2012a, Mills et al., 2012b, Schieber et al., 2012b, Apoya and Marriott, 2011, Gobah and Liang, 2011a, Jahu-Appiah et al., 2011c, Durairaj et al., 2010a, Mensah et al., 2010, Witter and Garshong, 2009c, Ramachandra and Hsiao, 2007, Macha et al., 2012, Abihiro and De Allegri, 2015, Akazili et al., 2014, Kusi et al., 2015a, Kusi et al., 2015b, Chankova et al., 2010, Chankova et al., 2008, Nketiah-Amponsah, 2009a). For example, based on a quantitative study, Akazili et al. (2012) examined the progressivity of health care financing and incidence of service benefits in Ghana and observed that while the national health insurance levy is mildly progressive, the NHIS contributions by those

outside the formal sector are regressive. The study concluded that the distribution of total benefits from public and private health services is pro-rich. In a similar study that used both quantitative and qualitative data, Mills et al. (2012b) observed that indirect taxes, out-of-pocket payments and NHIS contributions were regressive in Ghana, and that the overall distribution of service benefits favoured the rich, although the burden of illness was greater for lower-income groups. In a relatively recent publication, Akazili et al. (2014) analysed that 33.9 percent of women in the lowest SES quintile compared 58.3 percent for those in the highest quintile in seven districts in northern Ghana were insured. The study added that the relatively well-educated, prosperous, married and Christian were more likely to enrol in NHIS than their counterparts living in relatively poor rural communities. Others, (Atinga et al., 2015, Kusi et al., 2015a, Schieber et al., 2012b, Apoya and Marriott, 2011, Averill and Marriott, 2013a, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c) have attributed non-enrolment or dropout from the NHIS to non-affordability of premiums. Yet another important factor that relates to access to health care is the exclusion of indigents from through stringent eligibility criteria (Apoya and Marriott, 2011, Schieber et al., 2012b, Witter and Garshong, 2009c, Derbile and van der Geest, 2013).

Whereas these studies are important contributions to knowledge about the prospects and challenges of NHIS and access to health care in Ghana in general, to the best of my knowledge, none of these studies has specifically examined the differences in determinants of enrolment and uptake barriers between urban and rural areas in the northern part of Ghana. Examining enrolment and uptake of health care determinants under one umbrella

framework is covers an important knowledge gap given that these variables provide important indicators for assessing progress of universal coverage within a geographical description.

2.6 Summary of the literature review

This first section of the chapter looked at several of interpretations of equity in search for a more specific interpretation to form a theoretical framework of the study. The section provided a review of relevant philosophical theories of equity and arrived at some operational equity objectives for health care. It also explored the concept of universal coverage and reviewed various health financing models and highlighted how mixed financing has been instrumental in the achievement of universal health coverage in high-income countries. The chapter also established the gap in the literature which the study intends to bridge.

One important highlight of this chapter is that equity, although a very important policy goal, remains a difficult concept to define (Whitehead, 1992). Equity in health care financing requires that health care be financed according to ability to pay rather than the use of health services. This can be interpreted in terms of vertical equity or horizontal equity, where the latter implies that individuals with the same ability to pay make the same contribution. Vertical equity, on the other hand means that individuals of unequal ability to pay make appropriately dissimilar payments for health care, and this fits in well with the objectives of this study. The NHIS has, for example, exemptions for some vulnerable groups of the population including children less than 5 years of age, pregnant women, the aged and indigents. But while it is easy to recruit specific target beneficiaries like pregnant women and children under 5 years of age, recruiting indigents that

requires means testing seems tricky owing to stringent eligibility criteria used by the scheme (Borghi, 2011, Gobah and Liang, 2011a, Averill and Marriott, 2013a, Apoya and Marriott, 2011, Schieber et al., 2012b, Witter and Garshong, 2009c). As a result, it is argued in the literature that some poor people may have been excluded from the scheme (Averill and Marriott, 2013a, Apoya and Marriott, 2011, Schieber et al., 2012b, Witter and Garshong, 2009c).

Measuring equality of access for different communities is problematic. As a result, health planners will often resort to 'use' as an indicator of access to health care (Jan and Wiseman, 2011, Wiseman, 2011, Donaldson et al., 2005). Generally speaking, the difficulties in measuring equality of access inevitably mean that it can be only partially measured or, at best approximated, and as a consequence it is common to find equality of utilization being used as a proxy measure (Donaldson et al., 2005, Goddard and Smith, 2001, Jan and Wiseman, 2011). In this study, utilization of services is used as an indicator of access to health care services.

The closing part of the section provided empirical evidence on alternative financing schemes, and shows that OOP payments are generally regressive or at minimum, least progressive. OOP payments are supposedly progressive simply for the fact that the poorest do not use health services if they are required to pay. PHI is often regressive particularly in countries where PHI accounts for a large share of total health expenditure. In the few occasions where PHI is progressive (e.g. South Africa), the poor are excluded from the system and only those able to pay benefit. SHI on the other hand is generally progressive where payroll contributions account for the largest share of health

spending. However, it is not as progressive as tax-funded health systems. General tax is usually the most progressive financing mechanism. There is therefore a general consensus that in order for countries to achieve universal coverage, efforts must be put in place to remove or at least reduce OOP, and efforts made to promote pre-payment. However, amidst the fiscal space constraints facing LICs in particular, supplementing tax funding, payroll contributions and informal sector contributions has recently been promoted by international organizations as a viable financing option for LICs wishing to achieve universal coverage. Ghana's NHIS is a test case, and this research draws on Peters et al's framework in the next chapter to explore some of the key barriers that hinder enrolment and access to health care by the rural public. The above background helps in giving the study the desired focus in the sense that the NHIS was established on the principles of equity and universal health coverage for all Ghanaian residents irrespective of socioeconomic status or location.

Chapter Three

3.0 Conceptual framework

3.1 Introduction

Having explored the operational meanings of equity, as well as universal health coverage in the previous chapter, this chapter examines the concept of 'access' in relation to financial protection against the costs of health and the accessibility of needed care. In doing so, the chapter also provides a framework through which progress in financial protection and access to needed care within a given health system can be assessed. The chapter commences with a short review of some longstanding definitions of access followed by Peters et al. (2008) conceptual model of poverty and access to health care. The final part of the chapter explains why this framework was preferred to other frameworks used in similar studies.

3.2 Defining access

Like equity, access may mean different things to different people at different times and places (Aday and Andersen, 1974a, Penchansky and Thomas, 1981, Goddard and Smith, 2001, Peters et al., 2008, McIntyre et al., 2009). Against this background a number of relevant notions of access have been explored in this research, including earlier notions of the concept (Mechanic, 1972, Donabedian, 1973, Shortell, 1973, Rogers, 1973, USDA, 1973, Aday and Andersen, 1974a, Aday and Andersen, 1981, Penchansky and Thomas, 1981, Vladeck, 1981, WHO, 1978a), and relatively recent definitions of the concept (Goddard and Smith, 2001, Peters et al., 2008, McIntyre et al., 2009, Penchansky and Thomas, 1981).

Before zooming on Peter et al's operational definition adopted for this study, Donabedian (1973) and Penchansky and Thomas (1981) share the view that access to health services is the degree of fit between a health care system and individuals. Here, access is not a passive concept but relates to the communicative interaction between individuals and the health care system. This means that a 'one size fits all' approach is not appropriate for health care policy; an individual's circumstances, including experience with the health care system, provide a context within which access is determined. In their view, what constitutes compatibility between one individual and the system may represent incompatibility between another individual and the same system. Whereas some individuals may accept treatment from female physicians, another individual in the same health system may not accept treatment from a female physician.

Moving on from access to health services as the degree of fit between a health care system and individuals, other scholars have interpreted the concept as purely a supply concept relating to the availability of services (Guagliardo, 2004, Perry and Gesler, 2000). Access, from this point of view is simply about location measured by provider-population ratios. But as McIntyre and others observed, simply locating a provider in a community does not ensure that individuals with needs are empowered to receive care (McIntyre et al., 2009).

Researchers such as Jutting (2001), have understood access as a demand concept and relate it to the ability to pay for services. Subsidising incomes of poor population groups improves their ability to pay and may increase the demand for the services. Unfortunately however, affordability has generally been considered in terms of whether those with needs for services have a

means of paying the provider the cost of the service and hence concerned with insurance coverage, eligibility criteria for publicly funded programmes or other matters related to the cost of care at the point of delivery. However, Birch and Anderson (2005) have pointed out that prevailing reimbursement levels for some medical services, like dental care under public health systems are often too low and unattractive to dentists to offer care under these programmes, especially where there exists a parallel private market for dental care supported by private insurance plans that offer better fee levels. Thus, where providers are prevented from topping up payments by charging additional amounts to patients, services remain inaccessible, despite the general availability of providers and the affordability of services under public programmes (McIntyre et al., 2009).

Another way of looking at access relates to service use, highlighting important questions such as 'who uses services?' or 'does use differ between groups with different needs and do needs differ between groups with the same use?' Andersen (1995) discusses varying types of access to care, stretching from potential access to efficient access, and each type of access is discussed in terms of its association with use. One is tempted to associate this with Andersen's previous work being focussed on understanding variations in use, both between individuals and over time, in which one group of determinants of use was presented as 'access'. However, as McIntyre et al. (2009) observe, Andersen's framework does not take account of many other factors that are helpful in explaining variations in use where 'access' is the same. Andersen's work on understanding variations in use has been associated with a considerable body of research in which the quantity or type of service used is

adopted as the indicator of access. McIntyre et al. (2009) insist that construing access as use suggests that an individual who did not use services, or used services differently from others with the same needs, had in some way different access to care. However, this would only make sense if all other aspects of the relations of supply-side and demand-side considerations, including individuals' fundamental beliefs, values, and attitudes towards illness and health care were the same for the individuals (McIntyre et al., 2009).

Yet access could also be understood as the full cost, or shadow price of using a service, including the cost of transportation to and from the provider, waiting for service and additional costs associated with using care in addition to any price at the point of service use (Aday, 1975, Aday and Andersen, 1974b, Aday and Andersen, 1981). Le Grand (1991) however observes that the implications of the shadow price of services will depend on the context in which the costs are experienced. Costs of using services need to be interpreted in terms of the opportunity costs of using services. Thus, Le Grand brings in an affordability element alongside the supply-side influence of cost or shadow price. Here, both supply-side and demand-side influences within the opportunity cost concept are individualized. Additionally, the opportunity cost framework has the capacity to fit in other elements of access not generally considered in the literature. For instance, increasing services' availability and affordability would not automatically guarantee access to care if service providers were mostly male in cultures where parts of the population find it inappropriate for women to be examined by male physicians. This means that using the service would impose a significant opportunity cost on the woman in terms of self-esteem, personal standing, and community acceptability beyond the elements of opportunity cost

associated with the shadow price of care and the woman's capacity to incur the shadow price. Although this notion of opportunity cost as the meaning of access makes some sense, a difficulty in applying the concept of opportunity cost in empirical studies has resulted in some preferring to use simple supply-side measures such as physician-population ratios (Donaldson et al., 2005, McIntyre et al., 2009).

Another notion of access expressed by Goddard and Smith (2001) places emphasis on context. They argue that the notion of access is highly contingent on the context within which the analysis is taking place. Here, reference is made to the United States where access is often assessed based on whether or not the individual is insured, and distinctions such as the level of insurance or the magnitude of co-payments are not primary. In contrast, the European notion of access to health services varies remarkably in the sense that, in Europe almost all citizens are in principle covered by insurance. In the European context, access might generally refer to *"the ability to secure a specified range of services, at a specified level of quality, subject to a specified maximum level of personal inconvenience and cost, whilst in possession of a specified level of information"* (Goddard and Smith, 2001:1151). The European view is thus, consistent with the WHO position that access will be defined in different ways in different societies and at different degrees of development of the same society. Thus, for the WHO; *"Accessibility implies the continuing and organised supply of care that is geographically, financially, culturally, and functionally within easy reach of the whole community. The care has to be appropriate and adequate in content and in amount to satisfy the essential health needs of the people, and it has to be provided by methods acceptable to them"* (WHO, 1978a: 58).

3.3 Framework for assessing poverty and access to health care services - Dimensions of access to health services

Although Peters et al. (2008) definition of access is preferred in this study, they share the view with McIntyre et al. (2009) and Penchansky and Thomas (1981) that access is a multidimensional concept and one that disaggregates the broad concept into a set of dimensions that can be assigned specific definitions and for which operational measures might be developed. These dimensions include geographic accessibility, affordability, availability and acceptability of health care services (see figure 3.4). In the section that follows, these dimensions of access are defined and related to previous references to access in literature dealing with health services' utilization. This provides a foundation for critically discussing the results later in Chapter Eight.

3.3.1 Geographic access to health services

Geographic access is the relationship between the location of health care facilities and the location of those who need it, taking account of users' transportation resources and travel time, distance and cost (Penchansky and Thomas, 1981, Aday and Andersen, 1974b, McIntyre et al., 2009, Peters et al., 2008). According to (McIntyre et al., 2009), it involves issues such as the relationship between the location of health care facilities and the location of users and their transportation opportunities. In the provision of obstetric services for example, the question will be: are obstetric services located and configured in ways that reflect the variations in need for these services in the population? This is an important part of accessing health care in developing countries considering that health facilities are thinly spread across the country

and populations in rural settlements may be compelled to travel a long distance to access health services (Peters et al., 2008, Aday and Andersen, 1974b, Aday and Andersen, 1981, Macha et al., 2012, Khan et al., 2005, Jacobs et al., 2012, USDA, 1973). In urban areas where health infrastructures are robust, geographical distance may be less of a barrier to access to care and subsequent determinant of health outcomes (Mathews et al., 2010). However, where service provision is sparse, transport infrastructure is weak, and populations are predominantly poor, distance often presents a major barrier to accessing adequate care and thus plays a key role in sustaining high mortality rates in deprived areas (Gabrysch et al., 2011, Buor, 2003). This is often observed both in patients who die having not sought facility-based care as well as in the large number of people who die on the way to health facilities, on the way from a lower level health facility to one with more appropriate resources, or after arriving too late for treatment (Thaddeus and Maine, 1994, Kwast et al., 1986). The delays in deciding to seek care, reaching an adequate health facility and receiving the needed care within a facility have been known to limit uptake of emergency obstetric care in low-income countries (Campbell and Graham, 2006, Thaddeus and Maine, 1994, Barnes-Josiah et al., 1998).

Because geographic access is so important, its measurement should arguably form a central component of health system assessment and strategic planning, as well as providing a key development target indicator (WHO, 2015c). However, measuring geographical access thoroughly is fraught with data and methodological challenges and the result is that policy-makers typically revert to crude alternatives such as regional facility-population ratios (Bailey et al., 2009, WHO, 2009, MoH, 2011). According to Gething et al. (2012), these ratios may

be biased and inadequate proxies for assessing the true number of clients who are able to access health care and therefore hamper progress towards effective remedies. Furthermore, measuring geographical accessibility over large regions poses many challenges. The data requirements are considerable and hardly met in low income countries (Gething et al., 2012). Comprehensive and disaggregated data are required on the geographical distribution of both the population and the health facilities to which clients must travel to access care. Unfortunately, such data sets at the required level of spatial detail, contemporariness, and completeness are the exception rather than rule in Sub-Saharan Africa (Noor et al., 2009, Noor et al., 2006).

This study attempts to establish whether differences in distance to health services (both NHIS office and health facilities) results in differences in perceptions of access to health services among rural and urban inhabitants.

3.3.2 Availability of health services

Availability of services is another important determinant of access to health care. Availability means having the right type of health care available to those who need it. This would include such things as hours of operation and waiting times that meet demands of those who would use care, as well as having the appropriate type of service providers and materials (Peters et al., 2008, Penchansky and Thomas, 1981). An important availability issue highlighted in the literature is the ability and willingness of service providers to serve the population in accordance with the type and severity of their condition (McIntyre et al., 2009, Bruce et al., 2008). For example, do providers pay home visits to individuals confined to bed but not needing in-patient care?

In addition to providers' willingness to provide the needed care, the 'degree of fit' between the hours of service of health care facilities, or the use of appointment systems and the times that individuals need services to be provided is yet another dimension of services' availability (McIntyre et al., 2009, Aday and Andersen, 1974b, Aday and Andersen, 1981). According to McIntyre et al, (2009), working adults may have difficulty attending facilities during normal working hours, but some health needs require urgent attention with treatment effectiveness being compromised by delay in service provision. Aside from these, the relationship between the type, range, quantity, and quality of health care services provided at a facility and the nature and extent of the health needs of the individuals being served, equally determines service availability. For example, are laboratory services adequate and satisfactory? Do facilities provide comprehensive care or does comprehensive care require referrals between different facilities in multiple locations?

In a study by Dussault and Franceschini (2006), irrespective of income status, all countries studied reported a higher proportion of health personnel in urban and well-endowed areas. In Nicaragua, around 50 percent of the health workforce were clustered in Managua, the capital, which has only one-fifth of the country's population (Nigenda and Machado, 2000). In Mexico, it is estimated that in the late 1990s, whereas rural areas lacked health personnel, 15 percent of all physicians were unemployed (WHO, 2000). In Indonesia, doctors and nurses were reluctant to relocate to faraway islands and forest regions because of these areas lacked good communications with the rest of the country and offered few amenities for health professionals and their families (Chomitz, 1998).

It has been argued that urban areas are more attractive to health personnel for their comparative social, cultural and professional advantages (Van Lerberghe et al., 2002). Urban areas offer more opportunities for career and educational development, they have better employment prospects for health personnel and their family, opportunities to private practice and other lifestyle related services and amenities including good education for their children (Chomitz, 1998, Zurn, 2002). Additionally, the low status often conferred on staff working in deprived areas further adds to health personnel not being willing to accept posting to these areas (Zaidi, 1986, Zaidi, 1985).

The access literature as it relates to availability of health services in Ghana focuses almost exclusively on the shortage and uneven distribution of health facility personnel between and within regions (Schieber et al., 2012b, Jehu-Appiah et al., 2011c, Atinga, 2012a, Atinga et al., 2015, Durairaj et al., 2010a, Apoya and Marriott, 2011, MoH, 2014). While some studies (Atinga, 2012a, Atinga et al., 2015, Jehu-Appiah et al., 2011b, Macha et al., 2012) have highlighted issues such as the level of supply of drugs, other factors, such as the availability of NHIS personnel and agents to provide services in communities has hardly been researched. This is important area to investigate because, as Durairaj et al. (2010a) argues, for any health system to function effectively there is the need to provide a comprehensive package of services that includes clinical services as well as services provided by insurance schemes and health management teams. This study explores the effectiveness and appropriateness of the services provided by the NHIS in the district. An attempt is made to uncover whether for example, NHIS agents are available to provide effective and user-friendly services to community members. If agents

are failing to turn up in faraway rural areas, membership registration and renewal may be impeded, and this will create a barrier to access to health.

3.3.3 Affordability of health services

Affordability has always been at the centre of the debate on health care accessibility, especially for the poor. It refers to the relationship of prices of health care services and users' ability to pay in the context of the household budget and the other demands on the budget (Penchansky and Thomas, 1981, Peters et al., 2008, McIntyre et al., 2009). As already highlighted, besides the direct costs of treatments and paying for drugs, there are also indirect costs that deter the poor from seeking treatment when they need it (WHO, 2015c, WHO, 2010a, WHO, 2005a, WHO, 2005c, WHO, 2013b, ILO, 2008a, Apoya and Marriott, 2011, Averill and Marriott, 2013a, Macha et al., 2012, Mills et al., 2012b). These indirect costs include the opportunity costs of time of both the patient and household members accompanying them, transportation costs and expenses on food and lodging (Aday and Andersen, 1974b, Penchansky and Thomas, 1981, Macha et al., 2012, Kusi et al., 2015a, Kusi et al., 2015b, McIntyre, 1997, McIntyre et al., 2005, McIntyre et al., 2013, Basaza et al., 2013, WHO, 2010a, WHO, 2015c).

Ability to pay relates to an individual's ability to secure funds from their household or family and the other demands placed on those potential sources of funds (McIntyre et al., 2009, Jütting, 2003, ILO, 2008a, Jutting, 2001). These include for instance, the eligibility of individuals to benefit from financial support from publicly funded health care financing schemes that subsidize or cover the costs of health care at the time of service use. Ability to pay also includes the

ability of households or family units to cover the costs of services at the point of delivery, including: the amount, timing, and frequency of income flows, and the individual's ability to draw on these income streams; the level of cash savings that can be used to cover health care costs; the assets owned by the household and whether these assets can be easily and rapidly translated into cash; the extent and nature of social networks from which households can mobilize cash either via gifts or loans; the ability to secure formal credit arrangements and the conditions for loans (McIntyre et al., 2009).

Some studies have also suggested that in poor countries, settings where publicly funded or subsidized health insurance is available, such subsidized insurance premiums remain unaffordable and therefore a barrier to enrolment or retention in health insurance schemes (Atinga, 2012a, Atinga et al., 2015, Dong et al., 2009, Carrin, 2003, Macha et al., 2012, McIntyre et al., 2009, Akazili, 2010, Akazili et al., 2012, Akazili et al., 2011b, Akazili et al., 2014, Witter and Garshong, 2009c, Carrin and James, 2005, Peters et al., 2008, Aday and Andersen, 1974b, Aday and Andersen, 1981, De Allegri et al., 2006b, Alfers, 2013, Chankova et al., 2008, Basaza et al., 2008). In these settings, taking up insurance by some households may lead to catastrophic or distressed spending (WHO, 2015c). It is therefore not a surprise that there has been a significant interest not just in these financial barriers to access but also in the economic consequences of paying for health services, which, as indicated earlier, can drive poor individuals and households further down the poverty line (ILO, 2008a, ILO., 2005, McIntyre et al., 2006, Barrientos and Hulme, 2010b, Conway et al., 2000, Kusi et al., 2015a, Kusi et al., 2015b, WHO, 2010a, WHO, 2015c, Borghi, 2011, Abihiro and De Allegri, 2015).

Aside from the catastrophic spending and the likely impoverishment of households there are many studies in a wide variety of low-income countries that have also shown that out-of-pocket payments or user fees led to decreased utilization of health services (ILO, 2008a, Berkhout and Oostingh, 2008, Jehu-Appiah et al., 2011c, Asenso-Okyere et al., 1997, Agyepong and Adjei, 2008, Asante and Aikins, 2007, Asgary et al., 2004, Gobah and Liang, 2011b, Mensah et al., 2009, Peters et al., 2008, Borghi, 2011). Removal of user fees increases access to health care. In Ghana, the replacement of user fees with the NHIS in 2003 has made positive impacts on reducing financial barriers to care (Kusi et al., 2015b, MoH, 2014, Schieber et al., 2012b, WHO, 2008a, WHO, 2015c), and this has caused an increased use of curative and preventive health care services (Apoya and Marriott, 2011, Berkhout and Oostingh, 2008, NHIA, 2010, NHIA, 2012a, Jehu-Appiah et al., 2011c, Gobah and Liang, 2011b, MoH, 2014, Schieber et al., 2012b). Notwithstanding such a remarkable increase in access to care however, not everyone has equitable access to care. Empirical research on equity in the NHIS have observed a strong correlation between high socio-economic status and the NHIS membership suggesting that the poor are have been left out of the NHIS, and analysts attribute their exclusion to the high cost of flat rate premiums (Macha et al., 2012, Atinga et al., 2015, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Asante and Aikins, 2008, Witter and Garshong, 2009c, Sarpong et al., 2010, Schieber et al., 2012b, Akazili et al., 2012, Akazili et al., 2011b, Akazili et al., 2014, Averill and Marriott, 2013a). Yet another design element frequently cited as excluding the core poor is the stringent definition of the indigent (Schieber et al., 2012b, Apoya and Marriott, 2011, Witter and Garshong, 2009c, Sarpong et al., 2010).

While much of the literature on affordability has focused almost exclusively on individuals' or households' socioeconomic status as the main determinant of enrolment in the NHIS, the influence of costs leading to variations in enrolment and use of health care between urban and rural residents in Ghana has not been specifically researched. For example, do rural residents have equitable financial access to the health care and NHIS services? Are rural residents paying more in terms of transportation in order to access health services; even when health insurance premiums are subsidised for the poor, does the costs of transportation and lodging not prevent the rural poor from visiting higher level facilities? The WHO is of the view that health care is equitable and affordable if poor households are not made to pay more than they can to gain access. This view is in line with the argument presented by McIntyre et al. (2009) about access as empowerment, where the poor individuals and households need to be empowered to enable them access care without the threat of catastrophic spending that might result in impoverishment. These threats could deter the poor from accessing care when they need it, leading to variations in enrolment and uptake of health care.

3.3.4 Acceptability barriers

Acceptable health services provision remains major challenge in low-income countries although the Declaration of Alma Ata proposed that primary health care needed to be in line with prevailing cultural norms (Peters et al., 2008, Dillip et al., 2012). Acceptability relates to the fit between provider and patient attitudes and expectations of each other. Provider attitudes towards patient characteristics such as the type of patient, age, gender, ethnicity, language, and an individual's attitudes towards provider characteristics such as type of

provider, age, gender, ethnicity, language will influence the individual's ability to receive care (McIntyre et al., 2009, Penchansky and Thomas, 1981, Peters et al., 2008, Gilson et al., 2007). Acceptability is also defined as the social and cultural distance between healthcare systems and their users (Hausmann-Muela et al., 2003). Acceptability barriers come in different forms depending on the setting. In European settings such barriers are identified as underpinning the systematic differences in health care utilization patterns that exist between socio-economic groups and between other population groups (such as non-migrant and immigrants, men and women), notwithstanding the wide geographic availability of care as well as established financial risk protection systems (Tamsma and Berman, 2004). The need for culturally appropriate health services is also debated in relation to low income and minority groups in the United States (Anderson et al., 2003), and in connection with indigenous peoples worldwide (Stephens et al., 2006). The most relevant of these barriers from the perspective of this thesis is Palmer's discussion of poor provider-patient relationships, an element of the social and cultural distance often raised as an important access barrier in low and middle income countries (Palmer, 2007). There is also some clarity about the nature of acceptability barriers, how they influence health care equity in low and middle income countries, and how they can be addressed (Gilson et al., 2007). What seems missing in the literature is the differences in acceptability barriers between urban and rural areas. This segment of the framework, thus examines the elements of acceptability and considers the influences over provider-patient behaviour as a basis for analysing rural-urban differences in acceptability barriers and thinking

through the policy action required to address them to improve health care access for disadvantaged groups.

Gilson et al. (2007) identifies three elements of acceptability; first, is the fit between lay and professional health beliefs. Gilson argues that lay understanding of health care has an important influence over the decision of whether and where to seek health care. Where there is a mismatch between the lay health beliefs and the biomedical perspectives dominant within health care systems, users may be deterred from the use of allopathic providers and this may create patient distrust in them. Self-treatment or traditional medical treatment may be perceived as a more appropriate response to certain conditions, based on beliefs about different healing systems. In addition, patients' perceptions of the effectiveness of alternative health care services and technical competence of providers, the availability of drugs and equipment and institutional guarantees of competence also influence patient trust of providers and affect provider choice. These are often influenced by past experiences of care, the perceived appropriateness of care received and previous experience of getting better or worse after care. (Dillip et al., 2012, Dillip et al., 2009, McIntyre et al., 2009, Penchansky and Thomas, 1981, Peters et al., 2008, Gilson et al., 2007). This is important especially in pluralistic medical systems where traditional and modern medicine work in tandem. An understanding of the match between local and biomedical understanding of disease is therefore necessary to ensure acceptability of health care services (Dillip et al., 2012, Gilson et al., 2007). Additionally, Traditional Medicine Practitioners in particular have been found to be very accessible; they have available herb stocks at cheaper cost, but they also have fewer social barriers with their fellow villagers

and have helpful attitudes and longstanding relationships with them (Peters et al., 2008, Diallo et al., 2003, Young, 1983, Twumasi, 1979, WHO, 1978b). Unfortunately however, this system of health care is not included in the NHIS, meaning that users who prefer this type of medicine are excluded from the NHIS.

The second element of acceptability is the nature of patient-provider engagement and dialogue. Although part of provider communication practices and attitudes towards clients, engagement is influenced by patient's own abilities and willingness to engage in dialogue with providers and their attitudes towards them. For example, providers who are personally known to the client, or of the same sex, or ethnic group as the client may be trusted more than other providers (Gilson et al., 2007, Peters et al., 2008, McIntyre et al., 2009). Patients may expect providers to treat them with respect, listen to their symptom descriptions, undertake a thorough examination, explain their illness, and discuss treatment alternatives (Dillip et al., 2012, Peters et al., 2008). Similarly, patient expectations about an efficient process of using services, from the point of first entry through referral between providers in ways that minimize the burden on them, respect their privacy, and avoid stigmatization (McIntyre et al., 2009). If providers are not careful about how they go about their practices, they may end up reinforcing the negative perceptions patients have about them. For example, the language and the manner in which providers explain health problems to patients, the exercise of confidentiality and impartiality in the provision of care to different categories of patients, all influence the element of trust in providers and therefore the choice and use of health services (Burgess et al., 2004).

The final element of acceptability is in relation to the organizational arrangements of care and how they shape patients' responses to care. These arrangements and responses can, according to Gilson et al. (2007), first facilitate or prevent patients' access to the comprehensive range of needed health services. For example, research on the health care-seeking experiences of different minority groups (gay men, Hispanic women and injecting drug users) amongst people living with HIV and AIDS in one part of the United States showed that the ways in which health services are organised do not always reflect the socially accepted practices of patients seeking care. As a consequence, some of these patients changed their original source of care and routinely sought care from places where few HIV and AIDS services were available and therefore only gained access to needed services by chance or through informal arrangements (Takahashi and Rodriguez, 2002). Another organizational factor is the provider payment mechanism. It has been observed in many instances that patients view fee-based payment systems as encouraging providers to act against the patient's interest and in pursuit of financial gain (Gilson, 2005, Bruce et al., 2008). In some contexts however, patients may see free health care an indicator of poor care, discouraging use of services (Lönnroth et al., 2001).

Macroeconomic policies and constraints are also known to have an impact on provider performance in low income country settings, undermining salary levels and professional ethics, prompting abusive behaviour towards patients and breaking down patients' trust in the healthcare system (Owusu, 2005, Streefland, 2005).

All three elements reflect key concerns about the cultural competence of health systems. Cultural incompetence is frequently demonstrated by the dissonance between health beliefs of patients and dominant medical knowledge, discrimination towards patients, communication barriers between patients and providers and mistrust of health providers. In tackling health inequity therefore, it is important to recognize the socialized nature of health care. According to Gilson et al. (2007) tackling acceptability and trust barriers calls for three sets of actions: actions that strengthen the provision of care to the benefit of all groups whilst offering particular gains to disadvantaged groups including rural population; actions that prioritise the health care needs of disadvantaged groups and actions that are necessary to enable and sustain the interventions. Collectively, these policy actions can strengthen universal health care systems to benefit disadvantaged groups.

3.4 Other views on access dimensions

A number of frameworks have been employed by similar research in the identification of determinants and barriers to access to health care in low-income countries. For example, McIntyre et al. (2009) access evaluation framework has been useful in assessing equity in financing health care as well as identifying the factors that influence the distribution of health care in some sub Saharan countries. This framework views access as a tool that empowers the individual to use health care. It reflects an individual's capacity to benefit from services given the individual's circumstances and experiences in relation to the health care system. In this context access is seen as a multi-dimensional concept based on three dimensions: availability, affordability, and acceptability. Fairly recently, this framework was used in two studies; to assess equity in

financing and use of health care in Ghana, South Africa and Tanzania (Mills et al., 2012b), as well as to analyse the factors influencing the burden of health care financing and the distribution of health care benefits in Ghana, South Africa and Tanzania (Macha et al., 2012). The reason Peters et al.'s framework is preferred to McIntyre et al. (2009) access evaluation framework is because, unlike the latter, the former is more disaggregated and separates geographic accessibility from availability dimension, which is in consonance with the objective of the study to assess access to the NHIS and Health facilities in terms of the four specific dimensions of access articulated in Peters et al.'s framework.

Similarly, Penchansky and Thomas (1981) suggested dimensions of access that included accommodation, geographic accessibility, affordability and acceptability. Unfortunately however, he limited his definition of availability to the volume and types of services in aggregate (McIntyre et al., 2009). In practice, Peters et al.'s conceptualization of access combines Penchansky's dimension of accommodation and availability into a comprehensive definition of availability; the right health services found at the right location and at the right time.

While the above conceptual frameworks are useful in analysing access barriers, Peters et al. (2008) framework for assessing poverty and access to health care identifies a more comprehensive set of access dimensions that include geographic accessibility, covering factors such distance and transportation related issues; availability of services, which encompasses organizational factors such adequate staffing, opening hours and waiting time to appointment; and affordability, combining concerns for the cost of seeking care, households'

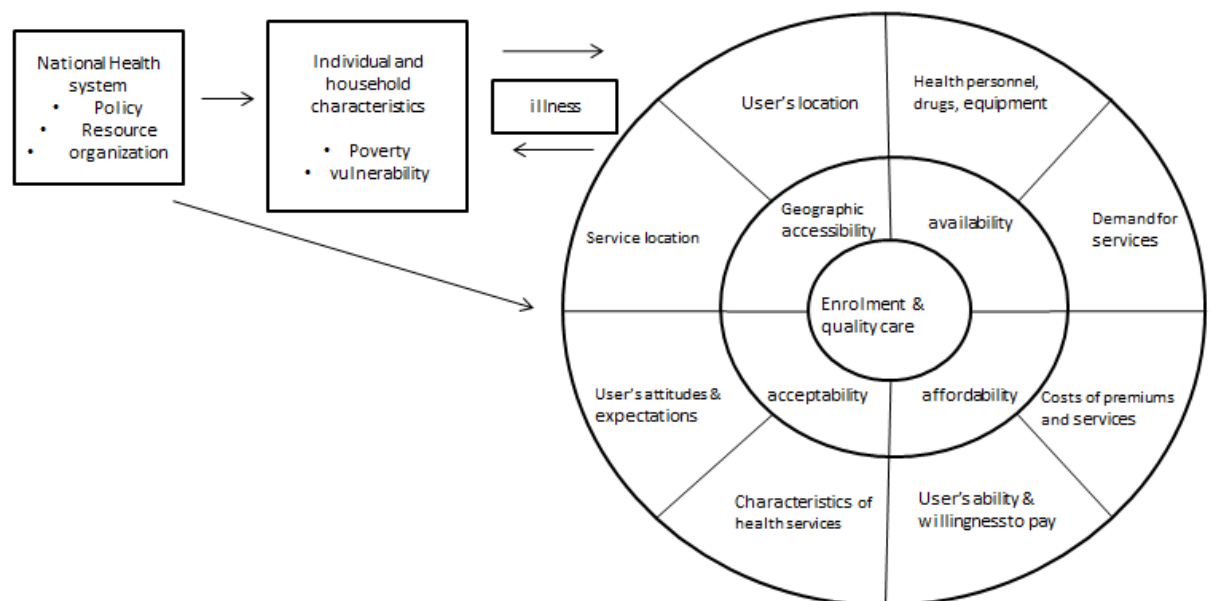
ability to manage these costs and the effect this has on household livelihoods. The fourth dimension is that of acceptability of services, which involves the social and cultural distance between health care systems and their users. Separating geographic accessibility from the availability dimension of access makes Peters et al.'s framework a preferred option over other conceptual frameworks such as McIntyre et al. (2009) 'Access evaluation framework' because an important objective of this study is to analyse the influence of geographic location on enrolment and uptake of health care separately from the availability dimension of access to health care. Treating these dimensions separately provides a clearer picture of the determinants and barriers to access in a rural context like the Jirapa District. Another important justification for preference of framework is purely on the grounds that it resonates with the objectives of the study: to examine differences in determinants and barriers of access to health services between urban and rural areas. The four dimensions of the framework make it possible to tease out the variations in determinants of enrolment and uptake of health care, but also to obtain a better understanding of whether differences in access between individuals may cause differences in the use of health care services. As the framework disaggregates the broader concept of access into four specific dimensions, it was easier to use household surveys and semi-structured interviews to generate reasonably reliable data on the subject. Such disaggregated data exposed coverage inequities, thus creating room for a fairly accurate assessment of indicators of both access to needed care and NHIS enrolment, taking into account the quality of services provided.

Aside from meeting the demands of the study objective, Peters et al.'s framework is also consistent with the WHO's conceptualization of access to health care, which is measured in terms of utilization of health services. The WHO argues that measurement of universal health coverage must take into consideration both the removal of financial barriers as well as access to needed health care (WHO, 2015c). Quite recently, this framework (Peters et al., 2008) served as an important analytical tool for the WHO report on 'Tracking Universal Health Coverage: Global health service coverage indicators' (WHO, 2015c: 18-35). This makes it most suited to this study as the design of the National Health Insurance Scheme (NHIS) in Ghana was based on the principal pillars of universal health coverage espoused by the WHO's 1978 Alma Atta declaration to ensure health for all (WHO, 1978a). A novel feature this framework is that it makes it is flexible and allows for both enrolment outcomes and access to needed care to be assessed concurrently. Here, the four dimensions of the framework make it easy to point out not only the barriers to enrolment in the NHIS, but also access to health care barriers in the Jirapa district.

In fact, Peters et al.'s framework has been the basis for other studies that explored equity in health care in low income countries. For example, Jacobs et al. (2012) adapted the poverty and access to health care services framework to provide an overview of the various dimensions of barriers to access to health care in low-income countries (geographical access, availability, affordability and acceptability) in Asia and outlined existing interventions designed to overcome these barriers. Peter et al's framework therefore underpins the analyses and discussion of the findings of this thesis. It locates quality of care and enrolment outcome at the centre of all four dimensions of access to health care services

because they form an important part of each dimension. Quality of care in particular is related to the technical ability of health services to affect the population's health (Peters et al., 2008).

Figure 3.4 Conceptual Model for assessing poverty and access to health care Services.



Based on Peters et al. (2008).

From the left hand side of the circle are sets of remote determinants of access to health care services. These include a national health care system, comprising resources and organization. A country's health care delivery system facilitates the provision of health care goods and services that include physician care, hospital care, dental care, drugs, and health appliances and services supplied by other relevant health care practitioners. The resources of the system are the labour and capital dedicated to health care services. These would include health personnel, health facilities and the equipment and materials used in the provision of care in Ghana. The volume of resources and their geographical distribution play a crucial part in facilitating access to and utilization of health care services. Proceeding from the health system are individual and household characteristics. Poverty is included in this component of the model because it is a determinant of illness or health needs but it can also be examined by looking at the disparities within the different dimensions of health services access in the Jirapa district, which is predominantly rural and poor. The main body of the framework describes four main dimensions of access to health care services, each having a supply-and-demand element. These include geographic accessibility, availability of services, financial accessibility and acceptability and satisfactory provision of services.

This framework underpins the analyses of the research in three ways. First, it helps to establish the differences in enrolment outcomes arising mostly as a result of differences in accessibility of health care services between urban and rural areas. Actual use of health care services is stressed here because it is the hallmark of the framework, which resonates quite well with the objectives of the thesis: to analyse whether the structure of Ghana's health system has a

detering effect on health insurance enrolment and utilization of health care services especially for poor households in rural areas. The thesis explores beyond enrolment outcomes and looks further at whether vulnerable groups in remote hard-to-reach communities are able to visit health care facilities when they are sick. The reason being that these vulnerable groups still face other access barriers such as costs of transportation and costs of maintenance on admission to higher level facilities (Macha et al., 2012, Peters et al., 2008, Mills et al., 2012b). Some of them will be unable to use health facilities because they are too sick to walk a long distance to the nearest facility.

3.5 Summary of the chapter

The main focus of the chapter was to define ‘access’ and present the conceptual framework of the study. Thus, it provided a short review of some longstanding definitions of access and arrived at an operational definition that is in sync with the objectives of the study. This was followed by a detailed presentation of four key dimensions of access that make up Peters et al. (2008) framework for assessing poverty and access to health care in developing countries. This framework underpins the analyses and discussion of the findings of the thesis. In the context of LMICs, the review demonstrates that in all the four dimensions of access to health care, the poor, mostly rural residents are placed in a disadvantaged position. For example, rural residents travel longer distances and pay more for transportation to access health services and in some rural places where health facilities are built, inadequate staffing inhibits the quality of service delivery. These service gaps may have serious effects on enrolment in the NHIS as well as access to health care by rural dwellers in particular. The next chapter examines the structure of Ghana’s health system

and evolution of health financing in Ghana from the colonial period to the
current NHIS.

Chapter four

4.0 The health system and the evolution of health financing in Ghana

4.1 Introduction

This chapter looks at the Ghana's health system and the evolution of its health financing in the country, with specific attention on the current National Health Insurance Scheme (NHIS). Ghana has a chequered history of health care financing, from nominal fee payment during the colonial period to a classic public revenue-funded National Health System at independence. The economic crisis of the 1980s and 1990s led to the introduction of the 'cash and carry' system which relied on substantial client payments at the point of service use to finance health delivery. However, the 'cash and carry' system produced poor health outcomes, a situation that led to the emergence of the mutual health insurance concept in the late 1990s and early 2000s. The shortcomings of the later precipitated the establishment of the current National Health Insurance Scheme (NHIS) in 2003. The main objective of the NHIS is to ensure every resident of Ghana has financial access to basic health care when they need it.

This chapter is divided into three sections. The first section gives a brief description of the geography, demography and economy of Ghana, including a brief profile of the Jirapa district. The second section of the chapter provides an overview of Ghana's health system. This is in line with the view that the organizational structure of the health system, the extent of health service infrastructure, human resources and access to basic health care, play an important part in universal coverage policy discussions, as these determine

both the government's ability to implement reforms and extend health coverage to the population (Goudge et al., 2012b). The third section of the chapter presents a chronological description of the transition health financing in Ghana from the colonial period to date. It presents the various phases of health care financing reforms and examines the factors that triggered these reforms.

4.2 Geography

Located on the West Coast of Africa about 750km north of the equator on the Gulf of Guinea and with a total land area of 238,305 km², Ghana shares boundaries with Burkina Faso to the north, Cote d'Ivoire to the west and Togo to the east (Asante and Aikins, 2008). It has a tropical climate characterized mostly by moderate temperatures of about 21-32°C, which favours the breeding of the anopheles mosquitoes that causes malaria. There are two main wet seasons; the first starts from March and ends in July, and the second spans between September and October. Annual rainfall in the south averages 2,030mm but varies greatly throughout the country, with the heaviest rainfall in the western region and the lowest in the north (ISSER, 2008).

4.3 Demography

The 2010 Population and Housing Census estimated Ghana's population to be 24.7 million (GSS, 2012). Its population structure is typical of a developing country with a youthful population, consisting of a large proportion of children under 15 years, and a small proportion of elderly persons (65 years and older). The age structure of the country's population is basically shaped by the effects of high fertility and decreasing mortality rate. The census report also indicates

that the proportion aged less than 15 years declined from 41.3 percent in 2000 to 38.3 percent in 2010. The proportion of the population 65 years and older has also declined slightly from 5.3 percent in 2000 to 4.7 in 2010.

In the same report, the classification of localities into 'urban' and 'rural' is based on population size. Localities with 5,000 or more persons are classified as urban while localities with less than 5,000 persons are classified as rural (GSS, 2012). An important element of the population structure is an increase in the proportion of the population living in urban areas from 43.8 percent in the 2000 census report to 50.9 percent in 2012. But the level of urbanization varies from one region to another. Greater Accra has the highest proportion of urban population (90.5%), followed by Ashanti (60.6%) while Upper West has the lowest proportion of urban population (16.3%). The relatively high concentration of industries and commercial activities in Greater Accra and Ashanti may partly account for the high urban population in these two regions. The remaining eight regions are predominantly rural, with the level of urbanisation is below the national average (GSS, 2012).

4.4 The economy and fiscal issues

4.4.1 Macroeconomic situation

The Gross Domestic Product (GDP) growth rate was 4.2 per cent in 2014 and 3.5 percent in 2015, which is a sharp decline from the 2013 GDP growth rate of 7.3 per cent. This negative growth rate over the last two years was below the average GDP growth rate for the Sub Sahara Africa region. Average GDP growth rate for the region was 4.6 percent in 2014, and although it reduced to 4.2 percent in 2015, it was still above Ghana's GDP growth rate for the same

year. While Ghana's annual GDP growth rate has been declining its inflation rate has been on the rise since 2012. Inflation increased from 8.7 percent in 2011 to 9.2 percent in 2012. The figure increased to 11.6 percent in 2013, and rose further to 15.5 percent in 2014. A similar trend is seen in fiscal deficit where Ghana's external debt endured an increase from US\$ 9,300,145,000 in 2010 to US\$ 15,831,510,000 in 2013. The resulting increase in debt servicing from 2.3 percent in 2011 to 5.6 percent in 2013 has had a negative impact on total public expenditure on health, which reduced from 12.5 percent in 2011 to 9.7 in 2012 (WHO, 2015).

The Ghana poverty mapping report shows that the three northern regions still remain the poorest in the country. It highlights significant differences in poverty between southern and northern Ghana, and even though the northern part has seen some reduction in poverty incidence since the 2000 census, their overall standing with regard to poverty incidence leaves them far below the national average of 29% (GSS, 2015). This picture reflects the overall geographically entrenched inequities that have existed between the south and the north of Ghana over many years. Currently the Upper West region is the poorest region, with about 7 in every 10 people falling below the poverty line. The figures for the Northern (50.2%) and Upper East regions (44.4%), below are not impressive either.

Table 4.4.1: Regional distribution of poverty - 2015

Region	Poverty headcount	Standard error	95% confidence interval	
			Lower limit	Upper limit
Western	20.9	0.0252	15.94	25.82
Central	18.8	0.0223	14.44	23.19
Greater Accra	5.6	0.0151	2.65	8.57
Volta	33.8	0.0343	27.12	40.57
Eastern	21.7	0.0242	16.91	26.4
Ashanti	14.8	0.0169	11.43	18.07
Brong Ahafo	27.9	0.0215	23.64	32.09
Northern	50.4	0.0318	44.12	56.59
Upper East	44.4	0.0388	36.8	52.01
Upper West	70.7	0.0275	65.29	76.07
GSS (2015)				

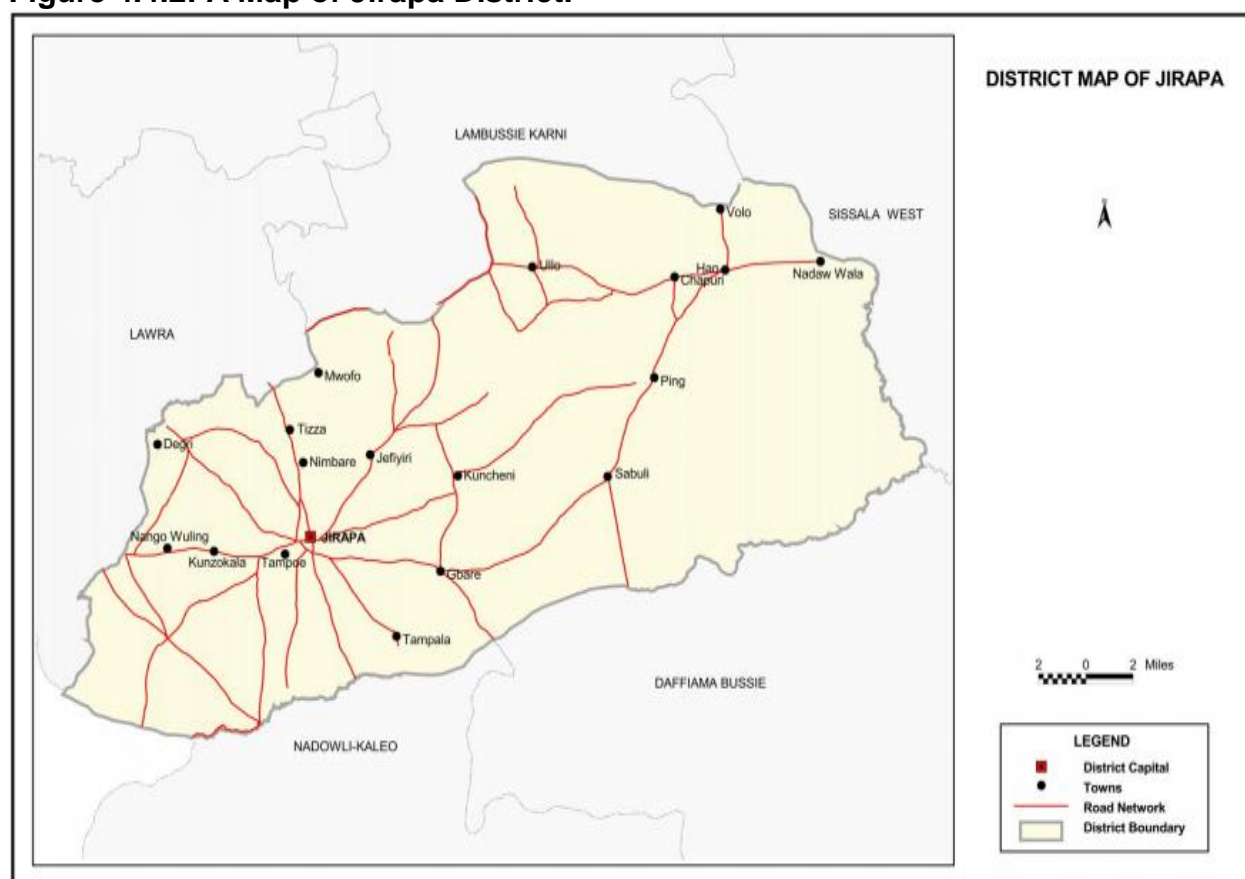
The report also reveals variations in the levels poverty in districts within regions. In the Upper West region for example, whereas the regional poverty rate is 70.7 percent, there is a wide variation in the headcount rate across districts. It varies from 36 percent in Wa Municipal to approximately 84 percent in Wa East district, and more than 90 percent in Wa West district. In the Jirapa district where this study was conducted, poverty rate is higher (71.4%) than the regional rate (70.7%) (GSS, 2015).

4.4.2 A brief profile of the Jirapa District

The Jirapa District, established by LI 1902 was carved out of the then Jirapa-Lambussie District in 2007 as part of the expansion and deepening of Ghana's decentralization process. The District is located in the north western part of the Upper West Region of Ghana. It is one of eight districts in the region and lies approximately between latitudes 10.25° and 11.00° North and longitudes 20.25°

and 20.40° West with a territorial size of 1,188.6 square kilometres representing 6.4 percent of the total regional landmass. Jirapa District is bordered to the north by the Lambussie-Karni district, to the south by the Nadowli-Kaleo District, to the east by the Sissala West District and to the West by Lawra District. The district capital, Jirapa, is 62 km away from Wa, the Regional capital. Its location presents a special development advantage for the district. Figure 4.1.2 below shows the boundaries and some of the major communities and road network in the district (GSS, 2014).

Figure 4.4.2: A Map of Jirapa District.



4.4.2.1 Population size, structure and composition

According to the 2010 Population and Housing Census, the population of Jirapa District is 88,402 representing 12.6 percent of the region's total population. Males constitute 47.0 percent and females represent 53.0 percent of the

population. An important statistic to highlight as far as this thesis is concerned is that 85.6 percent of the districts population live in rural areas. Aside from Jirapa town that has a population more than 5,000, the rest are villages with populations less than 5,000. These villages also endure limited important economic infrastructure and social amenities compared to Jirapa town. The population of the district is youthful (42.8% being under 15 years) depicting a broad base population pyramid which tapers off with a small number (9.3%) of elderly persons 60 years and above. The total age dependency ratio for the District is 99.0. The dependency ratio in the rural localities is higher (105.8) compared to 66.44 in the urban areas.

The district has a total number of 13,911 households, with average household size being 6.3 people. Children make up the largest proportion of the household composition accounting for 41.0 percent (GSS, 2014). Large household size along with high levels of poverty in the district raises concern regarding households' ability to pay to enrol in the NHIS and also pay for other health care services not covered by the NHIS.

4.4.2.2 Literacy and education

Of the population 11 years and above, 44.9 percent are literate and 55.1 percent are illiterate. The proportion of literate males is higher (52.4 %) than that of females (38.8%). About seven out of ten people (65.9%) speak and write both English and Ghanaian languages. Of the population aged 3 years and above in the district, 47.9 percent has never attended school, 39.0 percent are currently attending and 13.1 percent have attended in the past. High illiteracy rates is consistent with livelihood activities of residents, which in part accounts for the high levels of poverty experienced in the district.

4.4.2.3 Employment and livelihoods

The private informal sector is the largest employer in the district, employing 93.1 percent of the population while the public sector employs only 6.3 percent. Agriculture is the main livelihood activity with 82.7 percent of households engaged in subsistence agriculture. An overwhelming 96.2 percent of this figure does crop farming. Most rural households (92.2%) engage mainly in subsistence crop farming as a source of livelihood. The proportion of urban households in subsistence agriculture is relatively small (47.3%) (GSS, 2012, GSS, 2014). The GLSS' round of survey report that poverty in Ghana is disproportionately a rural phenomenon and the level of poverty is found to be highest among crop farmers (GSS, 2015).

4.5 Overview of Ghana's Health System

4.5.1 Policy Framework

The goal of the National Health Policy Framework has been to achieve the basic objectives of improving health outcomes, ensuring financial protection, as well as ensuring that the system is responsive, efficient, equitable, and sustainable (Saleh, 2012, Schieber et al., 2012b). To meet these objectives, public management of Ghana's health sector has gone through significant policy changes. One of such major changes has been the restructuring of institutional arrangements in the health sector. There has also been a separation of the policy-making, service delivery, financing, and regulation functions of the Ministry of Health (MOH). These have been allocated to relatively autonomous bodies. These autonomous bodies include the Ghana Health Service (GHS), the National Health Insurance Authority (NHIA), teaching hospitals, and many regulatory bodies (see figure 5.2A).

4.5.2 Organization of Ghana's Health System

The MOH remains the steward of the sector and is responsible for sector-wide policy formulation and monitoring and evaluation of progress in achieving sector targets (Schieber et al., 2012b). The MOH has the following specific functions:

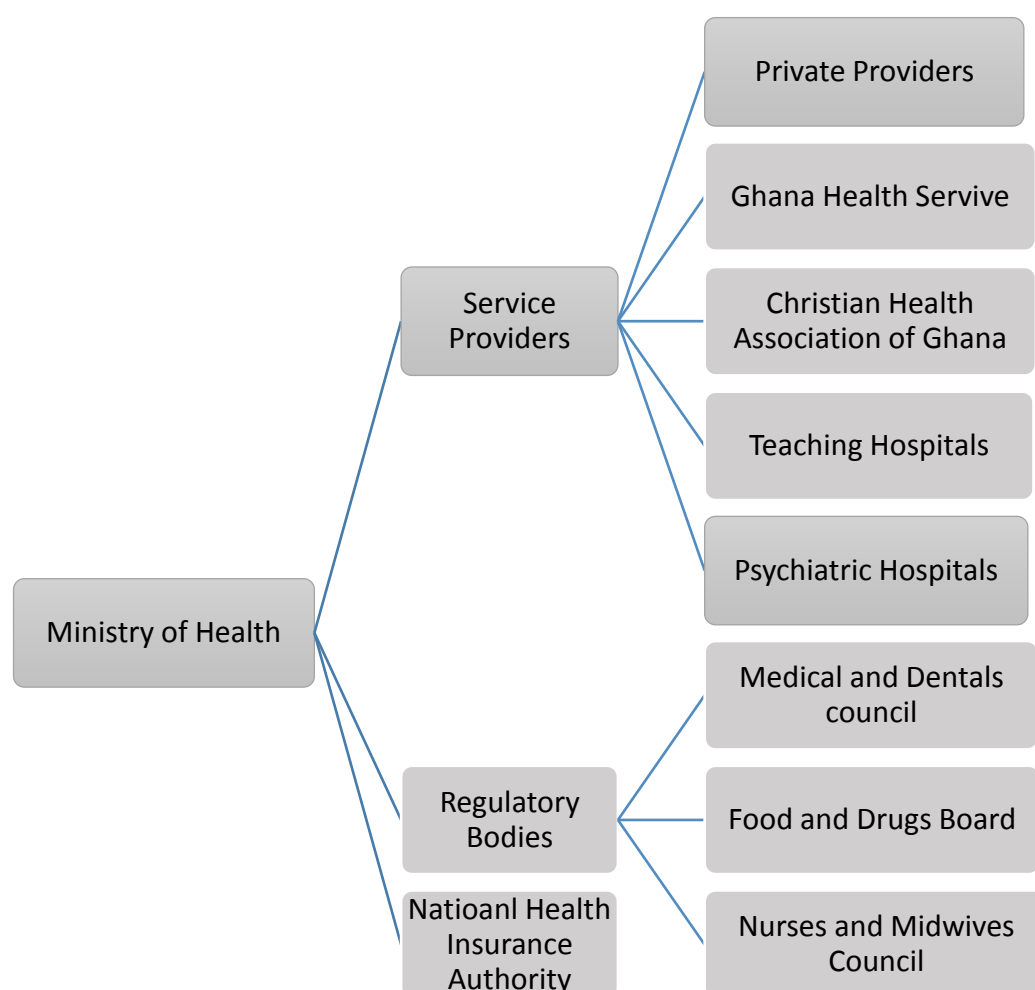
- Formulate health policy.
- Set standards for the delivery of health care in the country.
- Provide strategic direction for health delivery services.
- Monitor and evaluate the health service delivery by the Ghana Health Service (GHS) and the Teaching Hospitals, other Agencies, Development Partners and the Private sector.
- Develop policies for the practice of Traditional and Alternate Medicine in the country.
- Source funding for service delivery through GOG, Health Insurance and international community.
- Allocate resources to all health care delivery agencies under the Ministry.
- Provide framework for the development and management of the human resources for health.
- Provide a framework for the effective and efficient procurement, distribution, management and use of health sector goods, works and services.
- Make proposals for the review and enactment of health legislation.
- Provide framework for the regulation of food, drugs and health service delivery and practice.

(MOH, 2015)

The GHS was created in 2001 to facilitate planning and management decentralization and to give more authority to the Regional and District Health Services. It was established under Act 525 of 1996 as required by the 1992 constitution with the mandate to provide and prudently manage comprehensive and accessible health service with special emphasis on primary health care at

regional, district and sub-district levels in accordance with approved national policies. The establishment of the National Health Insurance Scheme (NHIS) since 2004 has changed the financing landscape of the health sector; citizens' entitlements are being strengthened through the extension of health insurance coverage. Its operations are overseen by the Ministry of Health (MOH). The MOH provides policy guidelines and approves proposals for the formulation of policies on health insurance. It also approves premiums determined by the NHIS, and monitors and evaluates the activities of the scheme to ensure that its operations are in tune with the objectives of the national health policy framework (MoH, 2007, NHIA, 2009a). As a result of these policy changes, the health sector is in transition from an input-based health financing system limited to public and mission health care providers to a performance-based system open to public, mission, and private health care providers (Saleh, 2012). How these system changes create incentives for curative services and high-impact preventive services deserves further investigation.

Figure 4.5.2: Organization of Ghana's Health System



Schieber et al. (2012b)

Over the past decade, the separation of service delivery, financing, and regulatory functions has created a favourable environment for organizational changes in health service delivery systems. As a result of the decentralization of health services and in recognition of the district as the locus for that, the mix of health service delivery organizations at the district level has expanded along with the role of district hospitals. Primary health care has re-emerged as part of the Community-based Health Planning and Service (CHPS) initiative. Under the auspices of GHS and accreditation of private providers by NHIA, public-private

partnerships (PPPs) are contributing to the expansion of private health service delivery organizations, including private hospitals, clinics, and maternity homes (Saleh, 2012, Schieber et al., 2012b, Bitran, 2011).

However, these changes in the health system have not been followed up by a similar decentralization of management structures. With the exception of teaching hospitals, limited management autonomy is seen for public health facilities. The MOH and GHS structures still centrally manage the human resources for health. The trend is the same for mission health facilities that depend on MOH for their human resources. Management of public health facilities and mission health facilities has gained flexibility in the purchase of drugs and the management of internally generated funds. Management's flexibility in the purchase of drugs was a consequence of major weaknesses in the public drug procurement and distribution system; this situation has resulted in a greater reliance on the private sector for the purchase of drugs. Additionally, reimbursements from NHIS have increased internally generated funds among public and mission health facilities. These revenues are contributing to greater flexibility of public and mission health facility management, and these dynamics are strengthening incentives for health facilities to offer curative care services; although unclear how they affect incentives for preventive care services, the scheme's bias towards curative care at the expense of preventive has been criticised as not being fiscally prudent (Apoya and Marriott, 2011, Schieber et al., 2012b, Saleh, 2012).

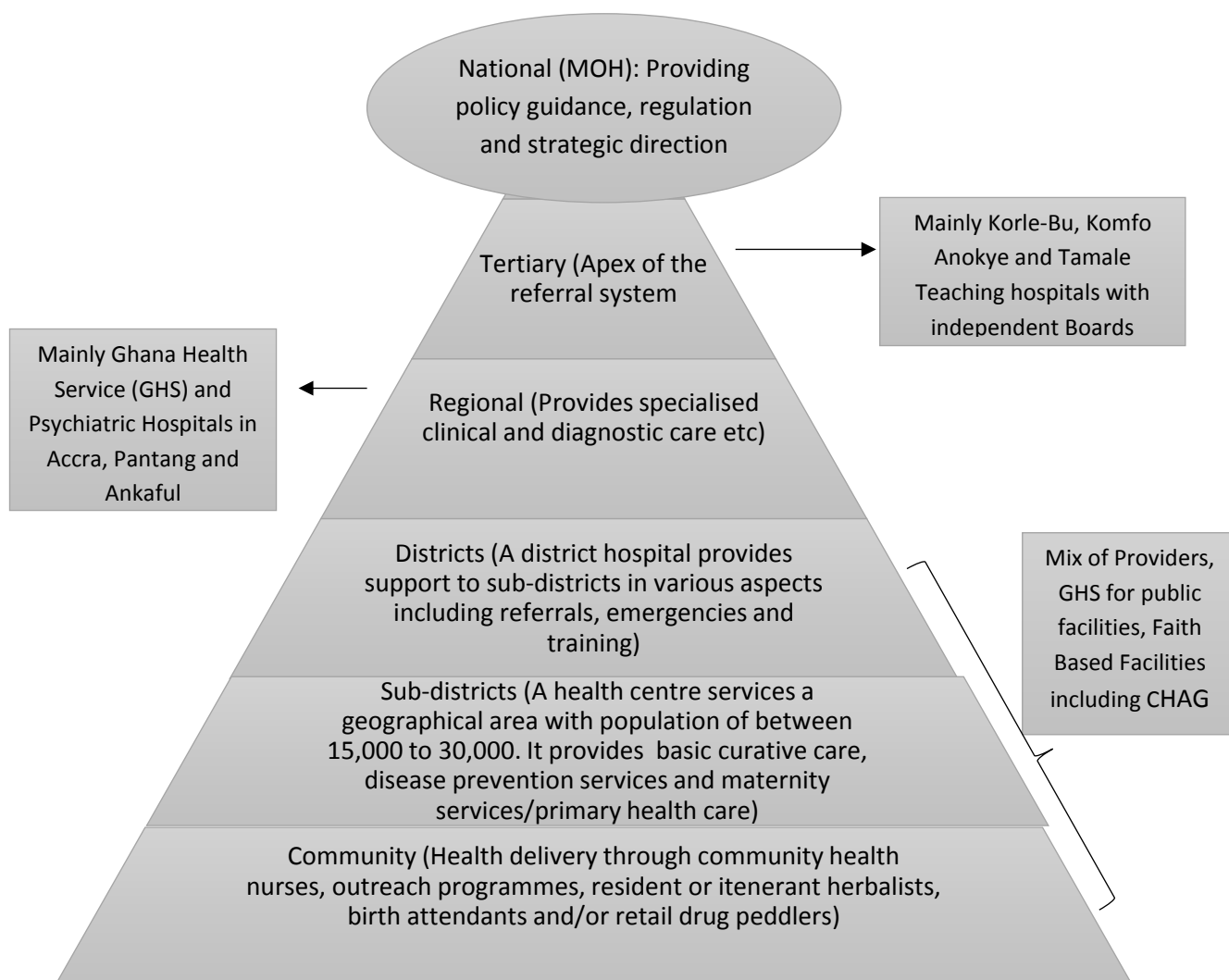
It is equally important to highlight that the role of donors has evolved over the past 20 years. After independence, it transitioned from a restricted role to a dynamic partnership. The health sector proactively engaged its donor partners

to make maximum use of the support it receives from them. In 1997, this sector became one of the forerunners of the Sector-Wide Approach (Saleh, 2012, Bitran, 2011). This shift resulted in two new coordinating mechanisms: pooled funds and a common management arrangement. Then in 2002, the quest for greater results from donor funds led to the signing of the Paris Declaration on Aid Effectiveness and later to the Accra Agenda for Action. These documents both laid out guidelines to accomplish this goal. Towards the end of 2000, the onset of Global Health Initiatives, such as the Global Fund for HIV/ AIDS, malaria, and TB and the Global Alliances for Vaccines, has increased the number of resources available to this sector (Saleh, 2012).

4.5.3 Health Service Delivery System

Ghana's health service delivery system is integrated, multilevel and spread all over the country (figure 4.5.3). Health facilities are either public, private not for profit, and private self-financing (Bitran, 2011, Akazili, 2010). The public health delivery system is decentralised, comprising of community health planning and services zones (CHPS), health centres, district hospitals, regional hospitals, teaching hospitals (see figure 4.53).

Figure 4.5.3: Ghana's Health Service Delivery System



Based on Seddoh et al. (2011), Schieber et al. (2012b)

The CHPS zone is the first level health facility in the rural areas, followed by health centres or clinics, district, regional and tertiary hospitals in an ascending order (Frempong et al., 2009, GHS, 2007, NHIA, 2013c). To ensure effective referral, reduce overcrowding at higher level facilities and improve the quality of care, health facilities have been classified according to the level of care they provide: primary, secondary and tertiary. Primary facilities, which include polyclinics, district hospitals, health centres CHP Zones, are the first port of call

for clients. Secondary facilities are mainly the regional hospitals, while tertiary facilities are the teaching hospitals to which clients are referred from the primary and secondary care centres. Tertiary facilities provide specialist services and are staffed with specialists and consultants as well as general practitioners. The Korle-Bu Teaching Hospital, the Akomfo Anokye Teaching Hospital, and the Tamale Teaching Hospital are the three tertiary facilities in Ghana (NHIA, 2013c, Seddoh et al., 2011, Frempong et al., 2009).

As indicated earlier, the private health sector plays an equally important role in the provision of health care in the country. The private health sector is defined as *“any nongovernmental health business; including private self-financed, not-for-profit, and mission or faith-based facilities involved in the direct delivery of health services, the supply of inputs, or the training of health professionals”* (Bitran, 2011:10). There are no commercial for profit private hospitals and clinics in the Jirapa district, however, there are faith-based facilities and of the few private pharmacy shops located in Jirapa town. Faith-based service provision represented almost entirely by the Christian Health Association of Ghana (CHAG), comprises hospitals and clinics. Like quasi-government facilities, CHAG functions autonomously but receives significant government support in the form of salaries for its staffs, equipment, and supplies. At present there is no competition between CHAG and GHS: A district or sub-district has either a CHAG or a GHS health facility. CHAG is seen to be playing a complementary role to the MOH and the GHS and is the 2nd largest provider of health services in the country. It is estimated that approximately 42% of total health services in the country are provided by CHAG’s member institutions (Akazili, 2010, Bitran, 2011, Saleh, 2012). There is some limited analysis also of

the activities of informal providers such as Traditional Health Practitioners in this thesis given that they constitute an important part of Ghana's pluralistic health system. The next two sub sections give a picture of the distribution of health infrastructure and human resources for health across the country.

4.5.4 Distribution of health Infrastructure

There has been a remarkable growth in the number health facilities in the country in recent years. However, the scaling-up of health facilities has not necessarily always kept pace with population growth and increased demand for health services, nor have they responded to regional needs, as shown in table 4.5.4A. At the community level, Ghana has scaled up its community-based health initiatives to reach rural and remote areas. CHPS grew from a mere 15 in 2005 to 1,675 in 2011. This figure however was short of the 2011 target of 1800 functional CHPS zones (GHS, 2011). To firmly position the health sector for the implementation of universal health coverage there is an ardent need to speed up the establishment of CHPS zones in order to increase access to primary health care in rural areas.

At the sub-district level, Ghana has again struggled to meet its targets for health centres and clinics. Health centres and clinics are an important first level of care. In 2009, Ghana had 1,600 health centres. Yet, many sub-districts did not have a full-fledged health centre or health clinic. The highest density of health centres was in the Volta; next was Greater Accra and the Eastern and Western regions. Brong Ahafo and the three Northern regions had the lowest number of health centres (GHS, 2009). At a time the government is implementing the

NHIS, having full-fledged health centres needs to be a top priority for the health sector.

Statistics show that as of 2010 Ghana had three tertiary hospitals, nine regional hospitals and 153 district hospitals; 62 percent of all district hospitals were under the Ghana Health Service (GHS), and the rest were owned by CHAG. Unfortunately, only 42 percent of districts had at least one district hospital, 11 percent had more than one, and 47 percent had none (GHS, 2010). The problem, according to the WHO is that Ghana has too many district hospitals, and many of them are underused. It was observed that the planning and scaling up of hospitals could have been more efficient. GHS and CHAG activities were not coordinated enough to bring about economies of scale. Private sector contributions were not taken into consideration in planning and implementation (Saleh, 2012).

Another constraint is health facilities' lack of capacity to provide adequate basic services. Health facilities in Ghana are expected to have appropriate diagnostic services. However, several facilities did not have laboratories and therefore face a constraint in conducting appropriate and timely diagnosis. Rural areas were more constrained. Additionally, hospitals are generally expected to have operating theatres. Regrettably the lower-level facilities did not have these. Even among hospitals, operating theatres for obstetric care were absent and only 14 percent of district hospitals had one in 2010 (Saleh, 2012). This raises concerns because emergency patients cannot be referred to district hospitals and must be referred to regional or teaching hospitals. There is a geographic equity concern too, as access to facilities varies across regions. Table 4.5.4A

shows an unequal regional distribution of health facilities. The three tertiary level hospitals located in Accra, Kumasi and Tamale.

Table 4.5.4A: Regional distribution of health facilities in relation to population – 2010

Region	Teaching hospitals	Regional Hospitals	Other facilities	Facilities total	Population	Population per facility
Ashanti	1	1	546	548	4,780,380	8,723
Brong Ahafo	0	1	267	268	2,310,983	8,623
Central	0	1	266	267	2,201,863	8,247
Eastern	0	1	371	372	2,633,154	7,078
Greater Accra	1	0	465	466	4,010,054	8,605
Northern	1	1	298	300	2,479,461	8,265
Upper East	0	1	143	144	1,046,545	7,268
Upper West	0	1	134	135	702,110	5,200
Volta	0	1	295	296	2,118,252	7,156
Western	0	1	420	421	2,376,021	5,644
National	3	9	3,205	3,217	24,658,823	7,665

GSS (2012); GHS (2010).

Inequity in the distribution of facilities is also reflected at the district level. The population of Jirapa District, according to the 2010 Population and Housing Census, is 88,402 representing 12.6 percent of the region's total population. About 85.6 percent of the population live in rural localities yet the distribution of health facilities is skewed against the most remote sub-districts; Yaga, Ulllo, Tuggo and Sabuli. Although the expansion of CHPS zones made a modest increase from 43 percent in 2011 to 60 percent in 2012, it is evident in table

4.5.4B that Tuggo sub-district has yet to receive a CHPS zone, and Sabuli, Yaga and Ullo have just one each instead of two. The introduction of national health insurance without improving geographic access seems to present a threat to the expansion of the scheme and access to health care particularly for the rural poor. Their inability to afford travel related expenses may result in delay in seeking treatment or resort to available traditional medicine practitioners, as observed in relation to deliveries conducted by Traditional Birth Attendants (GHS, 2005, GHS, 2012).

Table 4.5.4B: Statistics on the health facilities in the District – 2012

Table 10: Health Statistics on the Health facilities in the District				2012
Hospital	Name of Sub-district		Name of CHPS zone	Number
Jirapa hospital	district	Douri	Degri/Guri	1
			Tamapuo	1
		Hain	Chapuuri	1
			Ping	1
	Jirapa		Gbare	1
			Kuncheni	1
			Nambeg	1
			Saawie	1
			Sigri	1
			Tampaala	1
		Sabuli	Somboro	1
		Tuggo	-	0
		Ullo	Kogri	1
	Ul-Kpong		1	
		Yagga	Guoripuo	1
Total				14

(GHS, 2012)

Aside from infrastructure, however, observations show that most of rural health facilities in Ghana are not able to provide the services needed by clients due to lack of qualified health personnel (Macha et al., 2012, GHS, 2011, Mensah et al., 2010).

4.5.5 Distribution of human resources for health.

Current health care provider densities are far below the WHO recommended level (MoH, 2014). The 2011 doctor-population ratio of 1:10,034 is far below the WHO recommended density of 1:600. The worrying part is that Ghana still has fewer doctors and nurses per capita than other countries with similar GDP and health expenditure (WHO, 2015b, Schieber et al., 2012b). Also worrying is the uneven spatial distribution of human resources, especially physicians. Table 4.5.5A shows regional distribution of selected health personnel in relation to population for the year 2011. Greater Accra region (1:3,712) and Ashanti (1:7,704) have more doctors than the rest of the eight regions. The Upper West (1:38,267) and Upper East (1:38,642) compared to the other regions have the least number of doctors in the country.

Table 4.5.5A: Regional distribution of selected health personnel in relation to population – 2011

Region	Population per doctor	Population per nurse	Population per midwife
Ashanti	7,704	1,568	1,545
Brong Ahafo	16,103	1,495	1,515
Central	20,442	1,309	1,688
Eastern	16,065	1,173	1,801
Greater Accra	3,712	1,255	1,160
Northern	21,751	1,547	2,050

Upper East	38,642	914	1,265
Upper West	38,267	950	1,122
Volta	23,660	1,242	1,443
Western	26,044	895	2,039
National	10,034	1,240	1,478

(GHS, 2011)

Similar to the unequal pattern of distributing health facilities across the country, the distribution of health personnel was also unequal in the Jirapa District. At the time of this research there was only one medical doctor, 3 medical assistants and 6 midwives to a population of 88,402 people (GHS, 2012). Clearly, this limited number of staff cannot provide quality health care to the population particularly that there has been an increased demand for care caused by the introduction of the NHIS. In the normal order of things, every health centre must have at least a Medical Assistant, a Midwife and a number of Enrolled and Community Health Nurses that matches the size of population of the catchment area. But the absence of Midwives in some sub-districts (Yaga, Tuggo and Douri), and the lack of dispensary technical assistants and laboratory technical assistants at health centres has meant that a sizable proportion of pregnant women would be referred to Jirapa for attention. Similarly, aside from Douri, Jirapa Urban and Han sub-districts, the remaining four sub-districts were without Medical Assistants. As a consequence therefore, certain minor illnesses that should be treated at the health centre level by Medical Assistants are being referred to Jirapa hospital.

Table 4.5.5B: Statistics on selected health personnel in the district – 2012

Category of staff	Number at post	Population per staff
-------------------	----------------	----------------------

Doctors	1	88,402
Medical Assistants	3	29,467
Nurse Midwives	6	14,734
Enrolled Nurse/Health Assistant	18	4,911
Community Health Nurse	68	1,300
Dispensary Technical Assistant	0	88,402
Laboratory technical Assistant	0	88,402

(GHS, 2012)

Major reforms in infrastructure and human resource policies and implementation are required to address the equity challenges posed by this asymmetrical distribution of these most important health resources. Without accessible quality health care, the NHIS potential to progress to universal health coverage is under threat.

The next section analyses the genesis and evolution of health services in Ghana to set the platform for a better understanding and analysis of the spatial disparities in the distribution of health services across the country. It also gives a chronological account of the various financing mechanisms and highlights the factors that triggered these reforms.

4.6 Ghana's health financing system

The purpose of this section is to give a chronological account of this evolution process, to analyse the factors and events that led to the reforms, and to also highlight the prospects and challenges of implementing the NHIS. As mentioned in the introduction to this chapter, health care financing in Ghana has gone through a series of reforms since the colonial period to date. Table 4.6.4 is a snapshot of the various phases of health care financing reforms in Ghana

starting with nominal fee payment in the colonial period to free health care at independence. User fees were introduced in the 1980s as part of the structural adjustment and economic reforms programme. The current National Health Insurance Scheme was introduced in 2003 in fulfilment of a campaign promise by the New Patriotic Party to introduce universal health coverage if voted to power.

4.6.1 Health care financing during the colonial period

The colonial period ushered in a shift from solely traditional medical practice to an era of two medical paradigms: the use of traditional practitioners who continued to collect a token fee for their services and an introduction of colonial medical officers who charged a nominal fee to the general public for health services (Twumasi, 1979, Arhinful, 2003). The creation of the Gold Coast Protectorate in 1843 marked the early beginnings of modern health care under the British colonial system. The main objectives of the colonial medical services during this early period of colonial rule were to safeguard the health of European officials, other European nationals, and African soldiers and civil servants (Arhinful, 2003, Patterson, 1981). Patterson (1981) observed that little attention was paid to the general public, partly because of inadequate resources and negative public response, but also because of the priorities of most doctors.

The bias toward European health led to the provision of medical resources in towns that had an appreciable number of European inhabitants, whereas purely African towns were neglected. This created a spatial disparity in the distribution of health resources across the country. For instance, in the 1890s, hospitals and health facilities were established along the major towns on the coast and in

the south of the country to the neglect of the inland and northern parts of the country. Consequently, between 1878 and 1915, a European had about 300 times greater chance of admission into a hospital bed than a native resident. Similarly, while one bed was available to 70 Europeans, a bed was available to 22,000 natives (Addae, 1996). In terms of financial access to health care, whereas people who worked in the civil and public services had free health care those in the informal sector paid half a penny (Patterson, 1981). It is argued that the current Ghanaian health system has not managed to shake off this colonial urban-oriented medical structure that failed to address the health care needs of the rural public.

4.6.2 Introduction of free health care services at independence

Prior to independence, Ghanaians paid nominal fees (co-payment) for health care at the point of service. Unlike the “Cash and Carry” system these nominal fees only covered the costs of drugs served to clients. The only group of people who had free access to care was the Europeans, Civil servants and soldiers and their dependents (Patterson, 1981). Following independence, the new government led by Dr Kwame Nkrumah adopted a welfare system and used taxes to finance public sector health services that included free health care for all (Chankova et al., 2010, Mensah et al., 2010, Agyepong and Adjei, 2008, Agyepong et al., 2011). Free access to health care services was feasible because Ghana was a rich country at independence and had the highest per capita income in West Africa (Frempong et al., 2009). The Convention Peoples’ Party (CPP) government inherited from the British, a healthy amount of foreign exchange reserves of \$273 million, (the equivalent of \$2.275 billion today). In

addition, there was virtually no external or domestic debt and Ghana's population was only 6.5 million (Aryeetey et al., 2000). A few years down the line, the fall in cocoa prices coupled with poor performance by the state-owned enterprises (SOEs) resulted in a decline in economic growth. Inflation shot from about 6 percent during 1965-73 to 50 percent during the following decade (Aryeetey et al., 2000). This economic downturn coincided with severe declines in agricultural output between 1970 and 1981, and was compounded not only by external factors such as the collapse of primary commodity prices for cocoa, coffee, and timber but also by the oil crisis of the 1970s. The cumulative effect of these events caused a drastic reduction in general tax revenue to a level that could no longer support tax-based financing of the health care services (Chankova et al., 2010, Mensah et al., 2010, Agyepong et al., 2011). This marked the end of Ghana's free health care for all project. The lack of strong fiscal space by the 1980s therefore meant the government introduced nominal fees to not only discourage frivolous use but also to raise additional revenue to fund health care (Agyepong and Adjei, 2008).

4.6.3 The period of user fees and exemptions

The era of President John Rawlings, which spanned most of the 1980s and all of the 1990s saw the return of health financing reform to the political agenda in a serious fashion. Although the introduction of nominal fees helped to reduce frivolous use of health services (Agyepong and Adjei, 2008), the worsening economic downturn forced the Provisional National Defence Council (PNDC) government in 1983 to adopt an IMF and World Bank Economic Recovery Programme (ERP). The ERP was made up of a comprehensive set of policies

to reform the fiscal, monetary and trade sectors. The reform called for, among other conditions, the removal of subsidies on social services including health and education (Aryeetey et al., 2000). Thus in 1985 public sector user fees for health care, also known as the 'cash-and-carry system' was introduced (Chankova et al., 2010, Mensah et al., 2010, Agyepong and Adjei, 2008, Apoya and Marriott, 2011). The objective of the cash-and-carry system was to recover at least 15 percent of the Ministry of Health's recurrent expenditure for quality improvements. By 1987, the financial objectives were achieved; the ministry recovered 15 percent of its recurrent expenditure and 81 percent of drug replacement costs were mobilised through direct user charges (Waddington and Enyimayew, 1989). However, the "cash-and-carry" system created inequities in financial access to basic health care services. In the rural areas of Ashanti-Akim district for example, clinics saw a drop in utilisation of between 75% and 83% (Waddington and Enyimayew, 1989). Utilisation dropped by half in the rural areas of the Volta region (Waddington and Enyimayew, 1990), and at the national level visits to health facilities dropped by more than half (Dakpallah, 1988). Studies (Van den Boom et al., 2004, Oppong, 2001), have indicated that financial barriers ushered in by the cash-and-carry system forced poor households to regularly postpone medical treatment, resort to self-medication, or rely on cheap quack practitioners, often with harmful consequences.

In recognition of the inequities in financial access to health care presented by user fees, but also because opponents of the reforms had argued for exemptions and other forms of targeting (Aryeetey et al., 2000), partial exemptions for health personnel, antenatal and postnatal services, and treatment at child welfare clinics, among others were introduced in 1985. Then

in 1997, these exemptions were extended to children under five years old, people aged over 70 years and indigents and people suffering from certain communicable diseases (Apoya and Marriott, 2011). The failures of exemptions to safeguard access to health care for poor people are well documented. In theory the client's ability to pay for care would be determined by the doctor after examination. In practice however, the facilities' incentive was to charge fees at the least opportunity, and clients were made to pay a consultation fee during registration (Atim et al., 2001, Gilson et al., 1995). User fee exemptions for children less than 5 years old, pregnant women, and the elderly also faced implementation challenges from the onset. Atim et al. (2001) observed that the policy implementation was characterized by unclear or non-existent guidelines, uneven application and inadequate allocation of funds. As these challenges were persistent the problem of limited access to services became aggravated for the poor. It was commonly observed that many patients could not afford to pay out-of-pocket at the point of health care use. In her study of two communities in the Tano district of the Brong Ahafo region MacLean (1999) found that people resorted to traditional herbs for cure and did not turn up at the health facility for treatment until their illness had advanced to a more complicated phase. Whereas some of the poor turned up at the hospital for treatment but absconded without paying for their treatment, others resorted to self-medication (Chankova et al., 2010, Mensah et al., 2010, Atim and Sock, 2000). Against this background some institutions in health care initiated the search for community-based pro-poor systems of health care financing aimed at bridging the wide access gap created by user fees.

4.6.4 Emergence and Growth of Risk Pooling in Ghana

The Mutual Health Insurance movement started in Ghana during the early 1990s with support from the Ministry of Health and donors such as the Danish International Development Agency (DANIDA) and the U.S Agency for International Development (USAID), Partners in Health Reform (PHR), and Memisa. Donor Support for MHOs came in the form of logistics, cash and technical support at various times. In terms of training, Over 70 percent of the MHOs were trained based on the manual developed by PHR. Two MHOs (Damongo and Nkoranza) received substantial support from external NGOs, beginning from the planning stages to initial stages of implementation. The Danish International Development Agency (DANIDA) Health sector Support Program in Ghana provided logistical support to every region to promote the development of MHOs, and about 80 percent of all MHOs directly benefited from DANIDA support (Atim, 2001, Atim et al., 2002).

The first of a series of community-based health insurance schemes implemented was the Nkoranza District Health insurance Scheme, established in 1992 by the Catholic Diocese of Sunyani, which managed the Nkoranza district hospital (Chankova et al., 2010, Mensah et al., 2010, Agyepong and Adjei, 2008, Aiken, 2003, Atim et al., 2002, Atim, 2001). The Nkoranza District Health insurance Scheme was mainly a facility cost-recovery scheme, which Chankova et al. (2010:60), described as a “a well-informed providers response to patients’ observed inability to pay for care.” Following this initiative other stakeholders, including the Ministry of Health, explored the possibilities of establishing similar schemes in other parts of the country. In 1999, a new model

of community health financing, known as the Mutual Health Organization was launched. This new model was based on the principle of social solidarity, community ownership, and democratic control, as opposed to the provider-driven principle that characterized the Nkoranza scheme. The Mutual Health Organization model spread quickly in the country, growing from 3 schemes in 1999, to 47 in 2001, 159 in 2002, and 258 in 2003 (Atim and Apoya, 2003, Atim et al., 2001, Chankova et al., 2010).

In spite of the rapid growth of Mutual Health Organizations across the country, health care coverage was still limited and a large proportion of the population remains uncovered by these fragmented community-based schemes. A survey by Atim et al. (2002) revealed that about 89 percent of MHO membership was concentrated in three regions: Ashanti (38.7%), Brong Ahafo (20.1%), and the Northern region (30.5%). The study also showed that only 1.1 percent of the population was enrolled in the MHO schemes. The problem of limited coverage did not escape the notice of politicians and the leading opposition political party immediately took up the issue and promised to replace the cash-and-carry system with an affordable financing scheme if voted to power in the 2000 elections (Agyepong and Adjei, 2008, Mensah et al., 2010, Chankova et al., 2010), which perhaps played an important role in the NPPs victory in the 2000 presidential elections. Under the NPP government, the economy recovered and improved. The NPP government, which ruled from 2000 to 2008, introduced the National Health Insurance Scheme in 2003 to replace the out-of-pocket payment system that was a barrier of access to care for a large proportion of poor households (Chankova et al., 2010, Agyepong and Adjei, 2008, Jehu-Appiah et al., 2011b, Mensah et al., 2010).

Table 4.6.4 summary of various phases of the evolution of health financing in Ghana

Year	Event	Rationale	Features	Source of financing	Results
Colonial era	Co-payment for ordinary residents Free health care for Europeans and staff of colonial administration	Co-payment to recover costs of drugs Free health care for all Europeans and Ghanaians working for the colonial administration	Nominal fees charged for health care services. However, free health care was provided to expatriate staff and Ghanaian civil servants, soldiers and their dependants.	General revenues and user fees	Health care became free for all residents at independence
1957	Introduction of a national health service modelled after the British health system	Driven by early economic performance, natural resources and strong export base	Every resident was entitled to free health care Health care delivery through a network of publicly owed health facilities	General revenues	Not sustainable: with decline in economic performance the scheme became too expensive to run
1970s	Co-payments introduced	To prevent the collapse of publicly funded services	Co-payment for services Health care delivery through a network of publicly owed health facilities	General revenues and user fees	Out-of-pocket user fees charged from partial to full cost recovery
1985	Cash and carry system introduced	To recover 15% of MoH recurrent expenditure To legalised cost recovery To prevent frivolous use	Full cost recovery for drugs partial exemptions for health personnel, antenatal and postnatal services, and treatment at child welfare	General revenues and user fees	This policy excluded majority of people from access to healthcare

			clinics in 1985		
1990s	Community-based mutual health insurance schemes were introduced	Heavy cash-and-carry burden Lack of social protection for the poor Lack of government oversight of informal sector	Cross subsidization of the vulnerable Financial risk protection against catastrophic payment for health care Limited coverage	Donors (DANIDA, USAID) financial support Community and membership contributions	Financial protection and health care access for the poor Paved the way for the introduction the NHIS
2000	Profusion of MHOs	Success of pilot MHOs in the country Trend in other African countries Support from the Ministry of Health	MHOs grew rapidly from 3 schemes in 1999, to 47 in 2001, 159 in 2002, and 258 in 2003 Diverse in management and styles and benefits Based on district, occupation, religion or gender Limited coverage	Donors (DANIDA, USAID) financial support Community and membership contributions	Model around which the NHIS was designed.
2003	NHIS introduced	Relative success of the MHOs High out-of-pocket expenditure on health and very low utilization of health services. In fulfilment of the NPP campaign promise	Introduce mandatory health insurance Remove cash and carry Expand coverage through DMHIs	Health Insurance levy (2.5% on goods and services) 2.5% SSNIT payroll contributions Returns on investments by the NHIC Voluntary contributions	NHIS in started operation in 2005 155 DMHIS established 35 percent of the population enrolled as of 2012 Over 3,500 health service providers enrolled Increased utilization of health

					services
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Source: based on Ramachandra and Hsiao (2007)

4.6.5 The National Health Insurance Scheme: progress and implementation challenges

The National Patriotic Party (NPP) fulfilled its campaign promise by ensuring that the National Health Insurance Act (NHIA) was passed in August 2003, and the scheme became operational in March 2004 (Ramachandra and Hsiao, 2007). The establishment of the scheme followed intense consultations with the Ghana Health Service and of Ghana's International Health Development Partners, including the WHO, DANIDA, DFID, ILO and relevant NGOs (Frempong et al., 2009, Agyepong and Adjei, 2008, Ramachandra and Hsiao, 2007). The scheme is operated as a decentralised national health insurance system including district mutual health insurance schemes in 159 districts, private mutual health insurance, and private commercial insurance schemes (NHIA, 2016a). The objective is to ensure that all residents of Ghana have an opportunity to enrol in a health insurance scheme of their choice. The central government decides the minimum benefits package, gives licenses and regulates providers, collects a national insurance levy and provides subsidies to the poor. The intension is that health insurance will in due course become mandatory. The scheme did manage to achieve its target coverage of 33 percent (target was 30% to 40%) of the population by 2010. However, there are doubts regarding the scheme's 50-60 percent target for 2015-2020 given that active membership stood at 38 percent of the total Ghanaian population at the end of 2013 (NHIA, 2013b).

4.6.5.1 The National Health Insurance Authority/Council

The National Health Insurance Authority (NHIA)² was set up to implement the national health insurance policy that ensures access to health care for all. The council has a membership of 15 people representing various interests groups. They are appointed by the President in consultation with the Council of State. The council does its work through appropriate health insurance administration and committees, but its actions must be in line with health policy directives issued by the minister of health (NHIA, 2012d, Ramachandra and Hsiao, 2007). Headquartered in Accra, Regional and District offices of the NHIA have been set up to decentralize the operations of the Authority. The NHIA has responsibilities that include among others: registering, licensing, and regulating health insurance schemes. It also supervises the operations of health insurance schemes, granting accreditation to healthcare providers (private and public), and monitoring their performance for efficient and good quality service delivery. A total of 3,822 providers received accreditation between July 2009 and December 2013 to provide healthcare services to subscribers (NHIA, 2013a). The rationale for providing accreditation to providers is to help raise standards and quality of health care across the country for both insured and uninsured clients. Lastly, the NHIA also takes responsibility for managing the National Health Insurance Fund and devising mechanisms to ensure that indigents are adequately catered for (Mensah et al., 2010, Frempong et al., 2009, ILO, 2008a, MoH, 2003, NHIA, 2013a).

² The NHIS is the term used to describe the health insurance system as a whole. The National Health Insurance Authority (NHIA) is the managing body of the NHIS. The National Health Insurance Fund is the Statutory fund in which resources to fund the NHIS accumulate Schieber, G., Cashin, C., Saleh, K. and Lavado, R. (2012b) *Health financing in Ghana*. World Bank Publications.

4.6.5.2 Types of Health Insurance Schemes under the NHIA.

There are three types of health insurance schemes established under the NHIA. These include district mutual health insurance schemes; private mutual health insurance schemes; and private commercial health insurance schemes. It is important to note that the NHIS is modelled predominantly around the District Mutual Health Insurance Schemes (DMHIS). Act 650 (NHIA, 2003) and the Legislative Instrument LI 1809 National Health Insurance Regulations 2004 (NHIA, 2004) provided for the setting up of DMHIS in every district in Ghana. Under Article 81 of the Act, each DMHIS receives subsidies from the NHIA on condition that they follow the guidelines issued by the authority. Although the Act also allows for private mutual and commercial insurance schemes to participate in the scheme they are not entitled to government subsidies. The reason for this is not obvious, however, by not subsidising private schemes the Act has created an uneven playing field where government promotes and privileges district mutual health insurance schemes over private schemes (Seddoh et al., 2011, Ramachandra and Hsiao, 2007). This may explain why there are no known private mutual health insurance schemes in the country known to be participating in the NHIS.

4.6.5.3 The Mandate of District mutual health insurance schemes (DMHIS)

District mutual health insurance schemes (DMHIS) are responsible for establishing a district administration, enrolling and maintaining membership, and collecting contributions from people who can pay. DMHISs are also responsible for applying a means test to determine who is indigent, and administering subsidies received from the NHIF for the indigent. Registration is on individual basis and individuals have to register with the nearest district

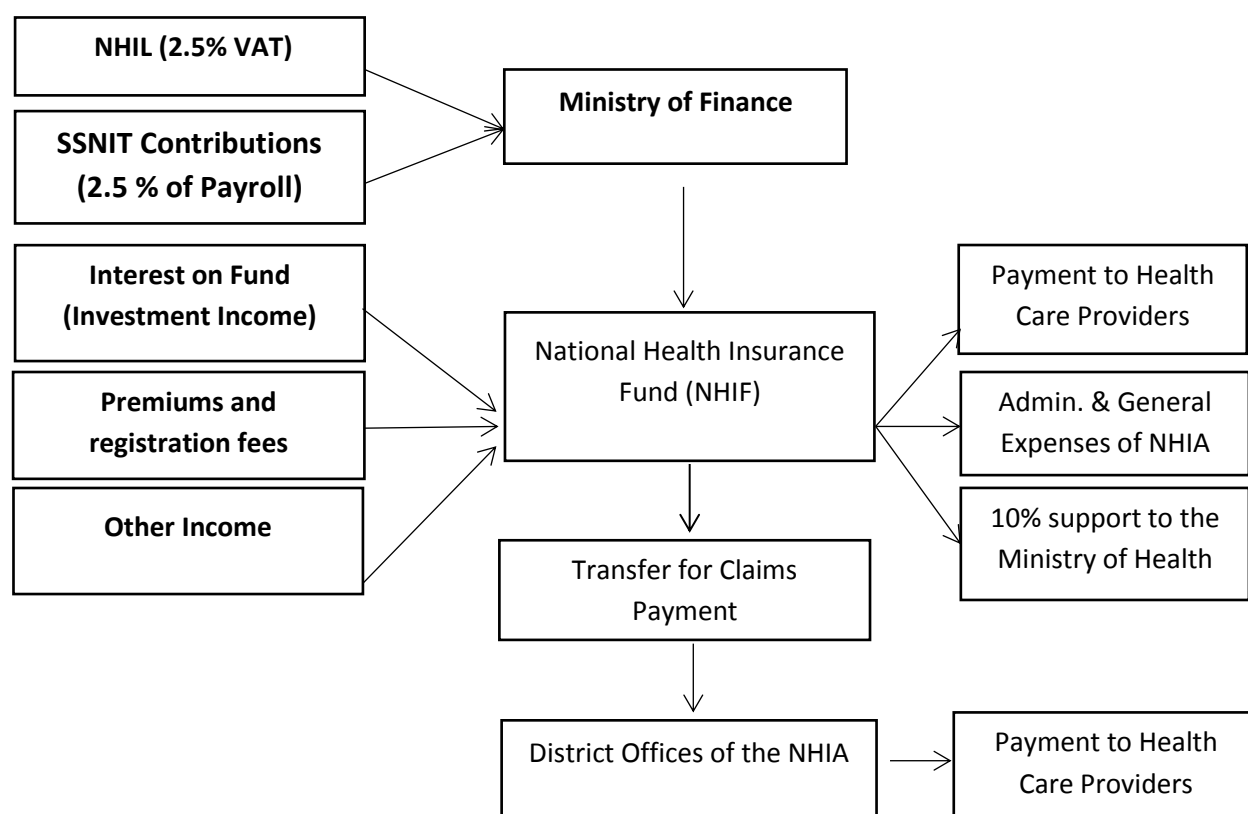
mutual scheme or through a Community Agent, assigned by the scheme to initiate the registration of subscribers at the village level. The Community Agent concept was introduced to make registration and renewal of membership accessible to rural community members such that they do not incur additional costs travelling to Jirapa to access these services. Membership cards are issued upon successful registration, and until the membership card is issued new subscribers cannot access health services under the NHIS (NHIA, 2003).

4.6.5.4 The National Health Insurance Fund (NHIF): Sources of Funds and Contribution Methods

Article 39 of Act 852 established the National Health Insurance Fund (NHIF). The purpose of the NHIF is to provide a direct subsidy to the district mutual health insurance schemes that offer healthcare services stipulated by the NHIA, to reinsure district funds against fluctuations in the cost of care; subsidise costs of health care for the indigent; and support programmes to improve access to health services (NHIA, 2012d:23, ILO, 2008a, Chankova et al., 2010, Ramachandra and Hsiao, 2007). Figure 4.6.5.4 shows the sources of revenue and allocation of the NHIF. The revenue sources of the NHIS are diversified and progressive (Schieber et al., 2012b, Akazili et al., 2012). The scheme is predominantly tax-based as 70-75 percent tax funded: NHIA funding is 2.5% of the VAT levy on goods and services produced in Ghana or imported (with some exceptions); 2.5 percent of contributions of Social Security and National Insurance Trust (2.5% tax on employee monthly SSNIT contribution). Other sources of revenue that constitute the NHIF pool seen in table 4.6.5.4 include grants; money from the government's budget; donor contributions; interest that accrues to the fund from investments made by the Authority; fees charged by the Authority in the performance of its functions; premiums collected from

informal workers, and monies accrued under section 198 of the Insurance Act, 2006 (Act 724) (ILO, 2008a, Sulzbach, 2008, NHIA, 2012a, NHIA, 2012d, Ramachandra and Hsiao, 2007). The Authority can make changes to these sources of funding in order remain competitive in the health insurance industry. The funds are held in bank accounts approved by the Accountant-General, and transfers from the fund to the district health insurance schemes are approved annually by parliament (NHIA, 2003, NHIA, 2004, Ramachandra and Hsiao, 2007).

Figure 4.6.5.4 Revenue Sources and Allocation (Act 852)



Source: NHIA Official website (2014)

While external donors are an important source, the population is always the initial source of all funds (Kutzin, 2000). Contribution to the NHIS is on individual basis and varies depending on whether the individual is employed formally or

informally. It is important to note that although formal sector employees automatically contribute to the NHIS through payroll deductions, they still have to register with their respective District Mutual Health Insurance Scheme or private health insurance scheme to be issued with an insurance card that enables them to access health care free of charge at the point of utilization. For people in the informal sector, registration and renewal of membership in the NHIS is done both at the scheme offices and in the field through the assistance of the community agents. Most people prefer to do this at the DMHIS office, to avoid the delays that can accompany processing membership cards when they register with field agents (Ramachandra and Hsiao, 2007). The delays are a result of agents waiting until they collect a sizable number of registrants before they take the payments to the DMHIS office. The registration process varies across districts; districts generally have either open registration throughout the year, or two annual registration periods (called minor and major seasons). The major season usually runs between October and January and the minor season between May and July to coincide with agricultural cycles. The major season is during the harvesting period, when farmers are in a better position to pay insurance premiums. In the Jirapa district where this study was conducted registration is open throughout the year.

The design of the scheme has an inherent vertical equity in contributions, through which the rich and healthier people cross-subsidise the incomes and risks of the poor and less healthy respectively. Members from the formal sector pay 2.5% of their 17.5% SSNIT contribution monthly to the Ministry of Finance as their health insurance premium. Since formal sector employees' health insurance contribution is income-related and deducted at source, it is progressive and satisfies the legal requirement and vertical equity principle of

health insurance (Akazili et al., 2014, Akazili et al., 2012, Akazili et al., 2011b, Mills et al., 2012b, Saleh, 2012, Schieber et al., 2012b, Witter and Garshong, 2009c, Atinga et al., 2015, Abihiro and McIntyre, 2013).

To ensure a fair and equitable contributions from the informal sector, Act (Act 852) establishes that informal sector premiums are graduated (see table 1) according to income such that the rich cross subsidises the incomes and the poor (Chankova et al., 2010, Mensah et al., 2010, NHIA, 2003, NHIA, 2012d). However, these will vary based on the economic endowment of each district such that relatively well endowed districts will cross subsidise the incomes of less endowed districts (MoH, 2002a). While this thinking reflects the principle of equity and solidarity upon which the scheme was established, an important challenge confronting the collection of premiums based on the graduated premium arrangement is the difficulty of accurately determining income levels of those outside the formal sector (Averill and Marriott, 2013b, Borghi, 2011, Witter, 2009). The flat rate contributions by those in the informal have been known to be regressive and pro-rich (Atinga et al., 2015, Akazili et al., 2012, Akazili et al., 2011b, Akazili et al., 2014, Amporf, 2013a, Mills et al., 2012b). The rich residing in less endowed poor districts are made to pay far less than they can, and perhaps willing to pay.

The progressive nature of the National Health Insurance Levy (NHIL), however, is ensuring vertical equity in the financing of the scheme. The NHIL is on selected goods and services deemed luxurious and frequently patronized by the rich compared to the poor and vulnerable groups in society. This situation is having progressive effect as it increases the tax burden of higher income

families and reduces it on lower income families (Mills et al., 2012b, Akazili et al., 2012, NHIA, 2013a, Saleh, 2012, Schieber et al., 2012b)

Table: 4.6.5.4: Graduated premium arrangement³

Core Poor	A	Adults who are unemployed and do not receive any identifiable and constant support from elsewhere for survival.	Free
Very Poor	B	Adults who are unemployed but Receive identifiable and Consistent financial support from sources of low income	ø7.20 (£1.44)
Poor	C	Adults who are employed but receive low returns for their efforts and are unable to meet their basic needs	
Middle income	D	Adults who are employed and able to meet their basic needs	ø18.00 (£ 3.6)
Rich	E	Adults who are able to meet their basic needs and some of their wants.	ø48.00 (£9.6)
Very Rich	F	Adults who are able to meet their needs and most of their wants.	

MoH (2002b)

4.6.5.5 Exemptions

The purpose of exemption is to offer financial protection to the poor and vulnerable groups in society, and to speed up progress towards achieving universal health coverage. Although, these strategies do not ensure vertical equity, they contribute to improvement in maternal, neonatal, and child health (MNCH) in the country (NHIA, 2013a). Box 4.6.5.5 spells out the categories of people exempt from paying contributions under the scheme (NHIA, 2012d:19).

³ Exchange rate: £1.00 = ø5.00

Box 4.6.5.5: Exempt group

- Children under 18 years (if both parents are active members of the NHIS),
- A person in need of antenatal, delivery and postnatal care,
- A person with mental disorder,
- A person classified by the Minister of Social Welfare as indigent,
- Categories of differently-abled persons determined by the Minister of Social Welfare,
- Pensioners of the Social Security and National Insurance Trust,
- Contributors to the Social Security and National Insurance Trust,
- A person above 70 years of age, and
- Other categories prescribed by the Minister of Social Work.

The NHIA (Article 104) defines an indigent as a person who has no visible or adequate means of or has nobody to support them and by the means test qualifies as an indigent. As stated earlier, the minister of health takes advice from the council and imposes a means test for determining who is indigent. According to Regulation 58, people are qualified as indigent if: they are unemployed and have no visible source of income; they do not have a fixed place of residence according to standards determined by the scheme; they do not live with a person who is employed and who has a fixed place of residence; and they do not have any identifiable consistent support from another person. Although this looks like a stringent test that would exempt only the poorest of the poor, it was anticipated that exemption of the indigent will be more effective under the NHIS than under the previous cash and carry system. The main reason is that the indigent will be identified at community level in advance of needing to use a health service, in contrast to the previous system of applying for an exemption at the health facility at the time of seeking care. This process has the added benefit that health care providers will not be able to identify who

is financially contributing to the district NHIS and who is not, as all are issued with identical insurance membership cards, which will minimise any service discrimination against the poor. (McIntyre et al., 2005, Garshong et al., 2002).

4.6.5.6 Purchasing and provider payments

The term purchasing may refer to the transfer of pooled resources to service providers on behalf of the population for which the funds were pooled (Kutzin, 2000). The strategic purchasing function of health insurance is critical for ensuring that available resources are equitably and efficiently used (Kutzin, 2001). Strategic purchasing means that the health care needs of the population are actively assessed and that the most appropriate services to meet those needs to the greatest possible extent are purchased. It contributes to ensuring that services are available when and where necessary and are of adequate quality (including through the accreditation of providers). Efficiency is enhanced by using provider payment mechanisms that offer appropriate incentives and by making use of purchasing power to keep down the prices of services (McIntyre and Meheus, 2014, Tangcharoensathien et al., 2013). The purchasing and pooling functions of Ghana's National Health Insurance Scheme are implemented by Ghana's National Health Insurance Authority. Regulation 37(2) L.I. 1809 of the health insurance legislative framework requires the NHIA to develop uniform provider payment mechanisms to reimburse accredited providers for services rendered to NHIS subscribers (NHIA, 2004, Schieber et al., 2012b). The provider payment mechanisms suggested in the law include capitation, fee-for-service, and other mechanisms, as determined by the NHIA. The salaries paid to health workers to deliver services are not related to how much work individuals do.

Initially, the NHIA adopted an itemized fee-for-service payment system (F4S). Under this system providers are reimbursed based on the number of services they render to users; providers bill for each service item that they provide to the service user and fees differ among service provider levels. The F4S payment system has a number of weaknesses; in addition to the natural incentive of fee-for-service payment to create supplier-induced demand for services, the tariffs used by different schemes were not uniform. There were inequities as different facilities were reimbursed at different rates for treating the same condition (Schieber et al., 2012b, NHIA, 2013c).

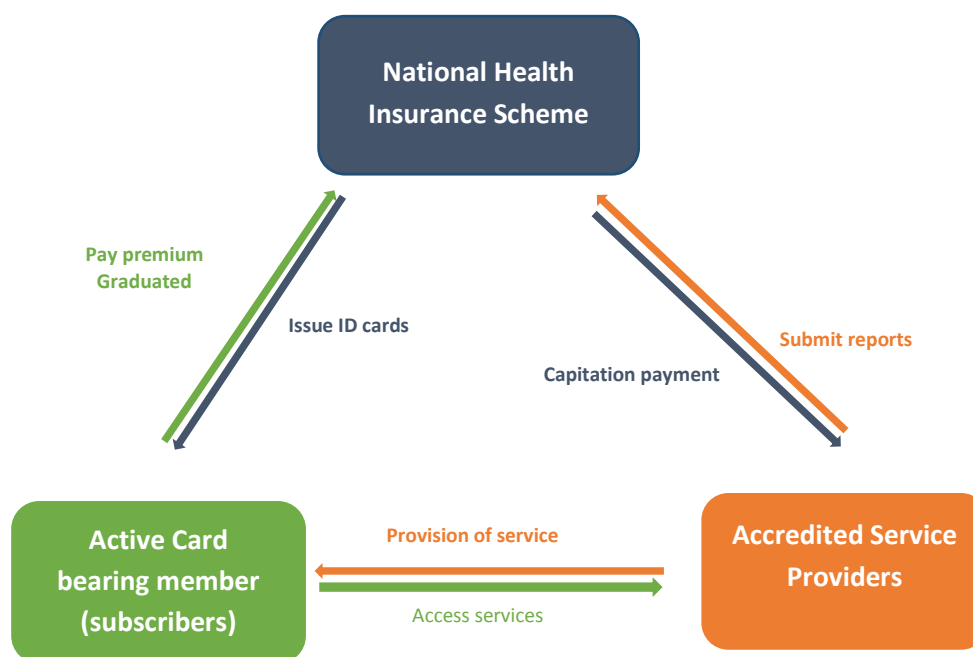
In response to the challenges of the itemized fee-for-service system, the NHIA implemented Ghana Diagnosis Related Groups (G-DRGs) in 2008 (NHIA, 2013c, Schieber et al., 2012b, Witter and Garshong, 2009c). DRGs are standard groupings of diseases that are clinically similar, require comparable amount of time for treatments, and use similar health care resources. Under the G-DRG payment system, providers are reimbursed the same fixed tariff for cases that fall into the same diagnostic category. There are about 550 G-DRGs, including bundled payment for outpatient services (NHIA, 2013c, Schieber et al., 2012b). Although this payment system is functioning well and generally accepted by providers, it did not succeed in containing costs or driving efficiencies in service delivery, particularly for outpatient services, which accounted for 70 percent of NHIS claims and 30 percent of total costs in 2009. Between 2007 and 2009, the value of the average outpatient claim increased by nearly 50 percent, from \$6.93 to \$10.11 (Schieber et al., 2012b).

By 2010, the NHIA was faced with concerns about unchecked cost escalation, apparent supplier-induced demand, and little evidence of improved quality or

effectiveness of services. After careful consideration of the challenges, it decided to pilot a capitation payment system for primary care services in the Ashanti region in 2011. The Ashanti region has a population of more than 3.8 million people and accounts for nearly 25 percent of total NHIS claims. It is hoped that the pilot will help turn the NHIS toward making more effective use of provider payment mechanisms and begin to address more fundamental problems in the service delivery system, such as the lack of focus on prevention, poorly coordinated care, and inadequate management of chronic diseases (NHIA, 2013c, Schieber et al., 2012b).

Capitation is a well-established provider payment method in several countries – high as well as middle income, and Ghana, by introducing capitation is walking a tried and tested road that many other countries have already successfully walked. The British National Health Service has used capitation for decades. The British system has become more complicated over time with several generations of reform but the basic principle is one of capitation. Thailand which is lauded internationally as a middle income country that now successfully covers virtually all its citizens with health insurance, uses capitation as the base of its provider payment system and reserves methods such as DRG for the higher referral level. Chile and Estonia are other examples of middle income countries successfully using capitation as one of their provider payment methods and have been successful in attaining universal or near universal coverage with health insurance (Schieber et al., 2012b). Figure 4.6.5.6 represents the framework for disbursing funds to providers under the capitation payment method.

Figure 4.6.5.6: Framework for disbursing funds to providers under the capitation payment method



Source: NHIA (2013c)

Under the capitation system, subscribers will be encouraged to choose their preferred primary provider (PPP) and pay the appropriate premiums. The NHIA will then assign them to their PPP. In the event that subscribers are unable to choose a PPP by themselves or should more than the expected number of people choose a particular PPP the NHIA will assign them to any PPP within their catchment areas. The NHIA will remain the ID card issuing body under the capitation system. All subscribers in good standing will be issued with ID cards to enable them access services from their PPP. The NHIA will pay accredited providers an agreed capitated fee for each person assigned to such provider to provide services to the subscribers assigned to it in times of need for health care services. Much as the NHIA does not expect claims from accredited

providers under the capitation system, it will require some reports from the provider as part of the accountability system (NHIA, 2013c).

According to the NHIA, the proposed reform in Ghana does not do away with any of the already existing provider payment methods. Rather it introduces capitation for a specific level of care – the primary level of walk in outpatient care, which is the fundamental base of the health care systems, and reserves the DRG for services and Itemized fee for medicines system to the higher levels of care. Under the proposed capitation system, the amount paid to providers will cater for selected OPD primary care cases.

The advantages of introducing per capita payments for first level outpatient primary care, as a complementary payment method to the already existing methods in the Ghana NHIS, include the following:

1. It will reduce the current massive administrative and staff time costs of claims preparation, submission, vetting and reimbursement involved in using G-DRG and fee for services for medicines to pay for first line OPD care
2. It will improve the ability of the NHIA to forecast and budget
3. It will eliminate problems of delayed payment of claims – for the services in the per capita basket. This is because monies are now being paid in advance to providers
4. By tying clients to a PPP of their choice it reduces fragmentation of care and introduces continuity of care for clients. It will also enable proper implementation of a referral system
5. By enforcing the implementation of the gatekeeper system – which is already part of the policy of the Ministry of Health, it will reduce some of the current misuse of care and resultant costs and wastage. For example

under the current system a client can visit several providers with the same condition – even on the same day, consuming staff resources and medicines at each point. This is a duplication and waste of scarce staff and financial resources.

6. The sharing of risk between schemes/NHIA, providers and clients under a per capita system has a better potential to ensure the financial sustainability and preservation of the NHIS.

The main disadvantage of a capitation system is that the provider may be tempted to provide less than needed services to the client. A close monitoring of quality of care is therefore essential in a capitation payment system. It is also necessary to continuously monitor the per capita rate to make sure that it is and remains fair for the package of services covered (NHIA, 2013c).

4.6.5.7 Benefits package under the NHIS

The NHIS offers a generous benefits package that covers about 95 percent of the burden of diseases (BoD) in Ghana as directed by the Legislative Instrument which accompanied Act 650 (Schieber et al., 2012b, Chankova et al., 2010). Table 4.6.5.7A gives a detailed list of all diseases treated free of charge at the point of utilization under NHIS.

Table 4.6.5.7A Benefits Package of the NHIS

<p>1. Outpatient Services</p> <p>Consultations including reviews: these include both general and specialist consultations.</p> <p>Requested investigations (including laboratory investigations, x-rays, ultrasound etc) for general and specialist out-patient services.</p> <p>Medication (prescription drugs on National Health Insurance Scheme</p>	<p>4. Eye Care Services</p> <p>Refraction</p> <p>Visual fields</p> <p>A-scan</p> <p>Keratometry</p> <p>Cataract removal</p> <p>Eye lid surgery</p>
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<p>Drugs List, traditional medicines approved by Food and Drugs Board and prescribed by accredited practitioners)</p> <p>Out-patients/Day surgical operations. (e.g., hernia repair, incision and drainage etc.)</p> <p>Out-patient physiotherapy.</p>	
<p>2. Inpatient Services</p> <p>General and specialist in-patient care Requested investigations (including laboratory investigations, x-rays, ultrasound scanning etc.) for in-patient care Medication (prescription drugs on National Health Insurance Scheme Drug List, blood and blood products) Cervical and breast cancer treatment Surgical operations In-patient physiotherapy Accommodation (General Ward) Feeding (where available).</p>	<p>5. Maternity Care</p> <p>Antenatal care Deliveries (normal and assisted) Caesarean section Postnatal care</p>
<p>3. Oral health services</p> <p>Pain relief (e.g., incision and drainage, tooth extraction, temporary relief) Dental restoration (simple amalgam filling, temporary dressing)</p>	<p>6. Emergencies</p> <p>All emergencies shall be covered. These refer to crisis health situations that demand urgent intervention. They shall include: Medical emergencies Surgical emergencies (including brain surgery due to accidents) Paediatric emergencies Obstetric and gynaecological emergencies (including Caesarean Section) Road traffic accidents Dialysis for acute renal failure</p>
<p>7. Public Health Services funded under special programme</p> <p>Some services are already being provided free of charge by Government through its public health programs. Under the National Health Insurance Scheme government will continue to provide these services free of charge. These include:</p> <ul style="list-style-type: none"> ▪ Immunization 	

- Family planning
- In-patient and out-patient treatment of mental illness
- Treatment of Tuberculosis, Onchocerciasis, Buruli Ulcer, Trachoma
- Confirmatory HIV test for AIDS patients

Based on NHIA (2012c), Sulzbach (2008).

An important element of an effective universal health coverage is the extent to which costs of a benefit package, quality and adequacy of health care services are covered (ILO, 2008a). This makes the NHIS benefits package above a generous one. However, given the current pattern of enrolment where 70 percent of the total registered population are in the exempt group the scheme's financial sustainability might be in danger. The other cause of cost escalation is the scheme's primary focus on funding curative care while neglecting preventive care (Apoya and Marriott, 2011, NHIA, 2009b, Schieber et al., 2012b). Between 2006 and 2008, whereas claims payments for curative health were skyrocketing, the government subsidy for preventive health levelled off in real terms in 2006 and 2007 and dropped in 2008 (NHIA, 2009b). The concern is that by only reimbursing curative health care the NHIS is not encouraging District Health Secretariats and health facilities to incorporate preventive health care into their services. The end product is likely to be an unwelcome increase in health problems resulting in increased costs for the NHIS but also the health sector as a whole.

As a cost containment measure therefore, the NHIS has a specified minimum benefit package that all District-wide schemes should adhere to. Some services, such as HIV antiretroviral therapy, hearing aids, dentures, and VIP accommodations are excluded from the health benefit package. A criticism however is that services like optical aids, hearing aids, orthopaedic aids, and dentures are mostly used by the aged and are basic health needs and should

not be excluded from the EDL of the NHIS. Table 4.6.5.6B shows the complete list of excluded services.

Table 4.6.5.7B Exclusion List

The following health care services are excluded from the NHIS benefits package
Rehabilitation other than physiotherapy Appliances and prostheses (optical aids, hearing aids, orthopaedic aids, dentures etc.) Cosmetic surgeries and aesthetic treatments HIV retroviral drugs (symptomatic treatment of opportunistic infections and other AIDS related diseases will be covered). Assisted reproduction (e.g., artificial insemination) and gynaecological hormone replacement Therapy Echocardiography Photography Angiography Orthopaedics Dialysis for chronic renal failure Heart and brain surgery other than those resulting from accidents Cancer treatment other than cervical and breast cancer Organ transplantation All drugs that are not listed on the NHIS drugs list Heart and Brain Surgery (other than those resulting from accidents) and Cancer treatment (other than breast and cervical) Mortuary Services Diagnosis and treatment abroad Medical examinations for purposes other than treatment in accredited health facilities (e.g., Visa application, educational, institutional, driving license etc.) VIP ward (Accommodation)

Based on NHIA (2012c)

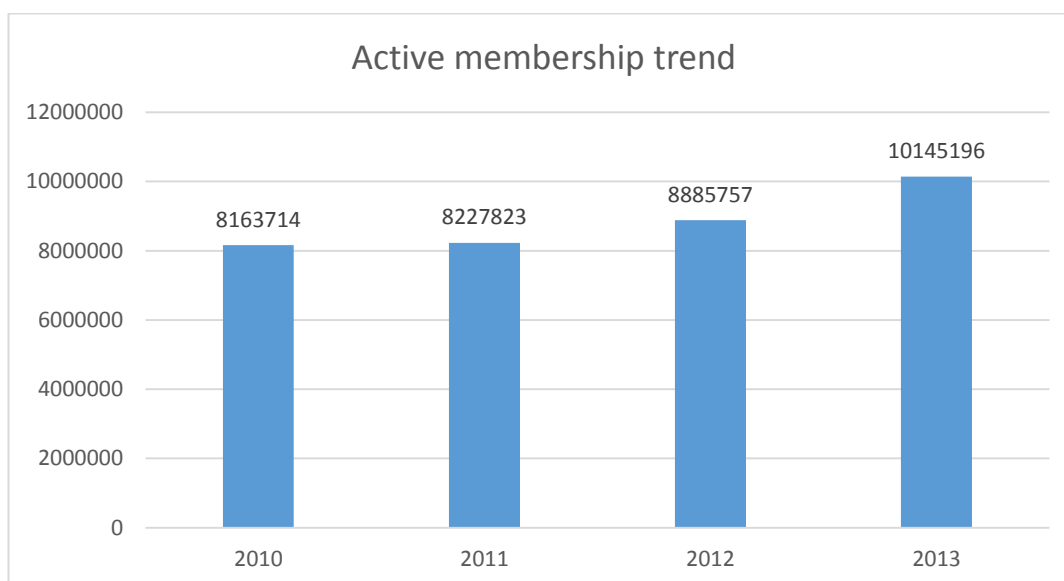
4.6.6 The Scheme's progress so far.

The NHIS has made some remarkable progress since 2005 when it commenced operations. These include increased enrolment, which has had a commensurate increase in outpatient attention, increased maternal health care, and a resultant increase in skilled deliveries. The number of accredited health facilities has also increased significantly.

4.6.6.1 Increased enrolment in the NHIS

Aside from becoming a major instrument for financing healthcare delivery in Ghana the scheme is credited with improvements in the health-seeking behaviour of many people in the country as statistics show increase in membership as well as utilization of health care services by its members. Although the scheme did not achieve its enrolment target of 60 percent at the close 2013, it achieved modest increases between 2010 and 2013. Total active membership increased from 8.16 million in 2010 to 8.23 million in 2011 showing an increase of 0.8% over the 2010 figure. Total NHIS active membership increased from 8.89 million in 2012 to 10.15 in 2013. By the close of 2013, active membership of the scheme stood at 38 percent of the total Ghanaian population (NHIA, 2013b). These statistics are based on the new ICT-based methodology which came into use in 2010. The previous methodology produced incorrect enrolment statistics between 2005 and 2009. The new methodology has been used for reporting active membership from 2010 to date.

Figure 4.6.6.1A: Increased enrolment in the NHIS, 2010 - 2013

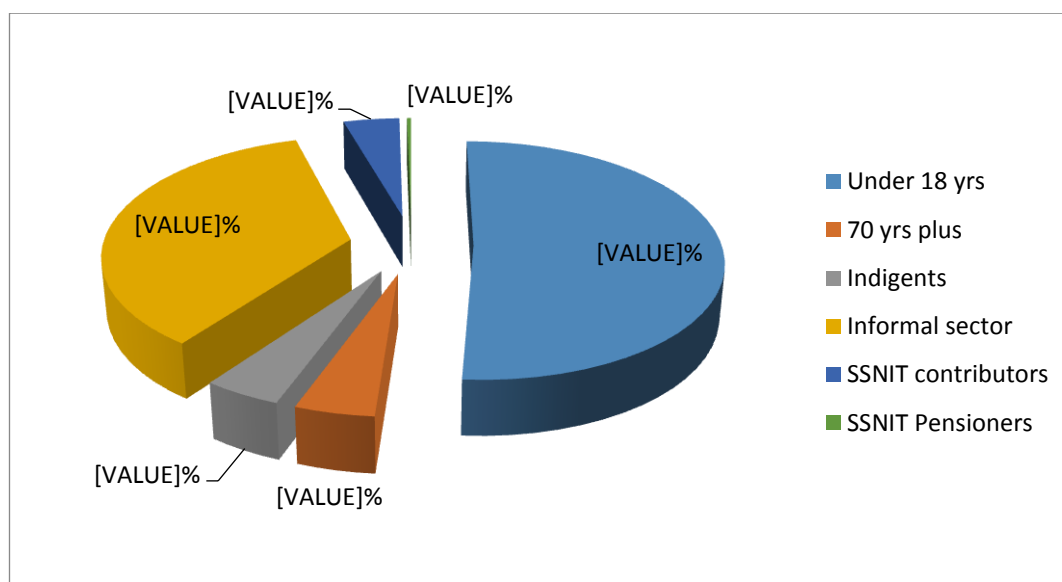


NHIA (2010; 2011; 2012, 2013)

Data on the breakdown of enrolment by categories was available up to 2012. The most recent annual report (2013 annual report) does not have this breakdown. Figure 4.6.6.1B shows that although non-premium paying members constitute the majority of enrollees, indigents seem under covered. Out of the total number of Ghanaians registered in the scheme in 2012 children under 18 years who do not pay full premium constituted 51.2 percent of active NHIS members while those 70 years and above were 4.5 percent, and 4.4 percent were indigents. The premium paying informal sector employees constituted approximately 35.5% of the active members. SSNIT contributors and SSNIT pensioners were 4.2% and 0.3% respectively. These statistics have two troubling issues that need attention; in the first instance, a large non-premium paying population is not a good sign in terms of the scheme's financial viability as premiums play a significant part in financing the operations of district health insurance schemes. Part of it comes from the exclusion of a large proportion of informal sector from the scheme. According to an Oxfam study

(Averill and Marriott, 2013b), the informal sector accounts for about 75 percent of Ghana's total labour force, yet their share of active membership of the scheme is 35.5 percent. One reason for the limited uptake may be a result of high costs of premiums for poor informal sector workers. Many in the informal sector who are expected to pay the set premiums may be considered poor but not indigent, which implies that they pay the minimum fee in order to enrol. However, because they cannot afford the premiums the scheme unintentionally excludes them (Averill and Marriott, 2013b, Apoya and Marriott, 2011). The other reason strongly associated with the exclusion of informal sector workers might be the scheme's weak capacity to reached out and enrol as many informal sector workers as possible as experience from other low income countries point to weaknesses in schemes' capacity to reach out and collect contributions of informal sector workers (Borghi et al., 2012, Dekker, 2008, Mathauer et al., 2008).

Figure 4.6.6.1B: Active NHIS Subscribers by Category, 2012



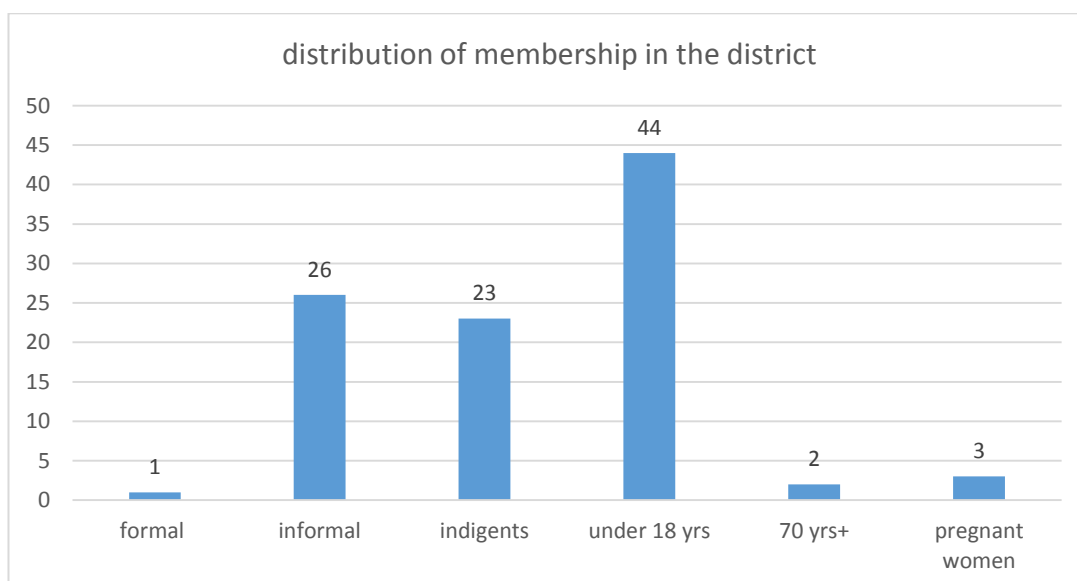
NHIA (2012a)

The other troubling issue is that the share of indigents of the total active members of the scheme is only 4.4 percent. This has placed the criteria for recruiting indigents for exemption under serious scrutiny for some time now (Averill and Marriott, 2013b, Schieber et al., 2012b, Apoya and Marriott, 2011, Witter and Garshong, 2009c). The criticism is that District Schemes have difficulties identifying and registering indigents, and the most frequently cited impediment is the stringent definition of the indigent (Kanchebe Derbile and van der Geest, 2013, Schieber et al., 2012b). Other reasons why indigents are not enrolling include a lack of public awareness of the insurance system, the long distances to travel to registration points (World Bank, 2007).

4.6.6.2 Increased enrolment at the district level

Statistics obtained from the Jirapa district health insurance scheme also shows that active membership increased from 66,818 (47.7%) in 2012 to 94,712, in 2013, representing 67.6 percent of the total population of the district (NHIS, 2013). This figure is far above the national average of 38 percent. It is important to point out that the recent increase in enrolment statistics in Jirapa in particular, may be the result of the recent introduction of special registration exercises aimed at extending enrolment coverage to those who may have been left out unintentionally. Figure 4.6.6.2 shows the distribution of active membership by various categories of enrollees in the district for the year 2013. It shows that 72 percent of active membership falls into the exempt group. They comprise of children below 18 years of age (44%), indigents (23%), pregnant women (3%) and the aged (2%).

Figure 4.6.6.2 Distribution of active membership in Jirapa district for 2013



Jirapa District Mutual Health Insurance Scheme (2013)

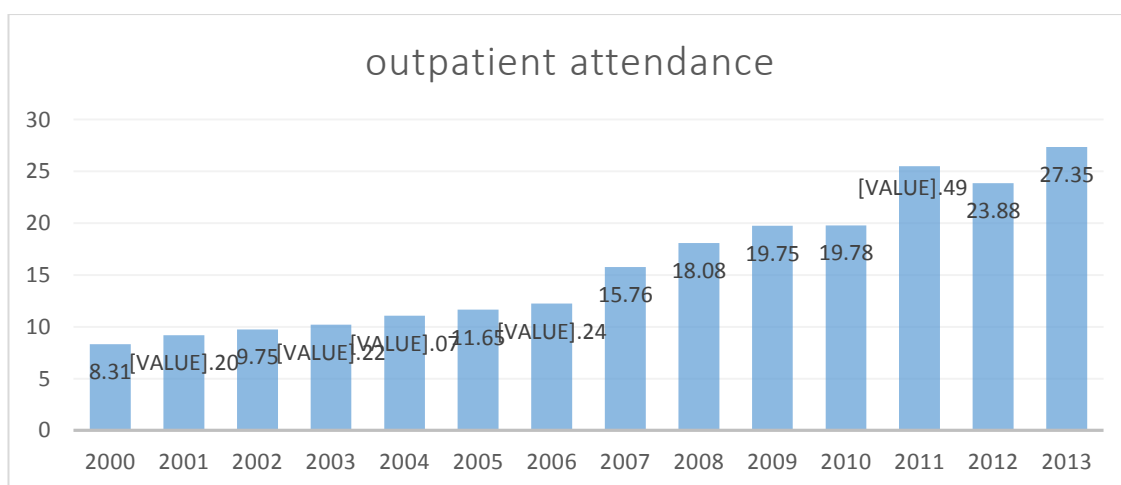
4.6.6.3 Credentialing of health facilities

Another area in which the NHIS has made significant progress is in credentialing of health facilities. By the close of 2013 the scheme has accredited a total, 3,822 health facilities. The aim is increase equity through improved geographic access to care. Facilities that have been accredited include Private Chemical Shops, CHP Zones, Clinics, Dental Clinics, Diagnostic Centres, Eye Clinics, Health Centres, Laboratories, Private Maternal Homes, Private Pharmacies, Physiotherapy, Polyclinics, Primary, Secondary and Tertiary Hospitals and Ultrasound. Among these facilities, 1,197 CHPS Zones representing 31.3% came out as the highest to receive credentialing. Government health facilities account for 2,075 representing 54.3% of credentialed facilities followed by 1,511 private facilities representing 39.5% of credentialed facilities. Other credentialed facilities include the mission and quasi-government ownership (NHIA, 2013b).

4.6.6.4 Increased utilization of health care services

Utilisation of health services is one of the measures of both geographical and financial access to these services (WHO, 2015c). Although utilization of OPD services has seen a consistent increase since 2000, a sharp increase was observed between 2006 and 2007. The statistics show that total OPD visits increased by 28.4 percent between 2006 and 2007 (GHS, 2007). During the same period the attendance per capita also increased from 0.55 to 0.69, representing a 25.5% increase. This was the sharpest annual increase ever experienced, and thereafter, OPD visits per capita continued to increase nationally with an average of 1.07 at the close of 2011. The proportion of OPD attendance by insured clients increased from 55.81 percent in 2010 to 82 percent in 2011. These improvements in utilization of health care services have been attributed largely to improvement in financial access to health care that the National Health Insurance provides. Analysis of health reports show a correlation between increased health insurance enrolment and increased health services utilization. At the national level outpatient utilization recorded a significant increase from 8.3 million in 2000 to 27.4 million in 2013.

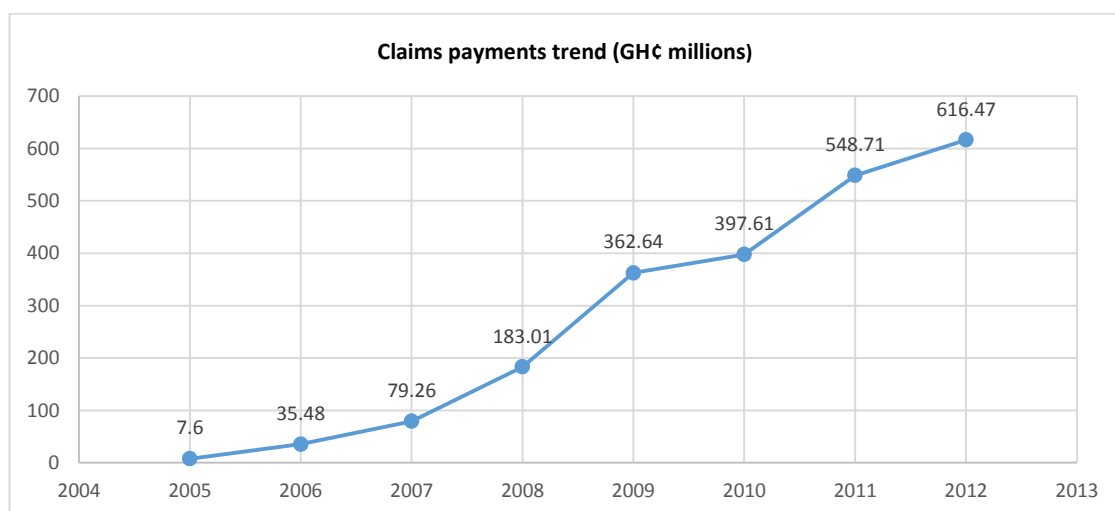
Figure 4.6.6.4A: Outpatient Utilization Trend



(GHS, 2012)

According to the National Health Insurance Authority, increases in outpatient and inpatient utilization rates led to an increase in claims payments from GH¢7.60 million in 2005 to GH¢616.47 million in 2012 (figure 4.6.6.4B). The total amount of GH¢ 616.47 million disbursed for the payment of claims represent about 80% of the total expenditure of the scheme.

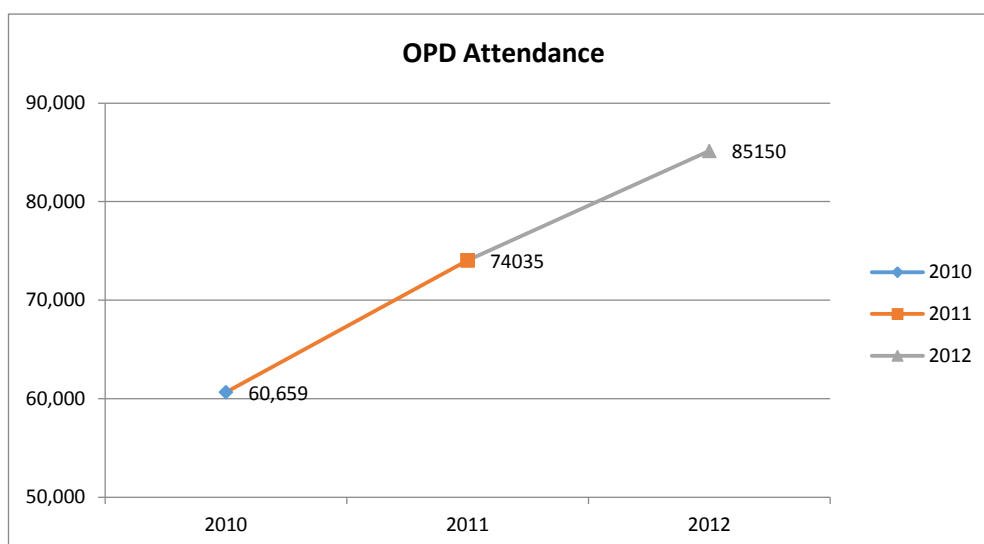
Figure 4.6.6.4B: Claims payment trend



NHIA (2012)

Moving away from the national level statistics, Jirapa District Health Services also recorded increases in OPD attendance, antenatal and postnatal visits, and skilled delivery between 2010 and 2012. OPD visits in the twenty one health facilities in the district increased from 60,659 in 2010, to 74,035 in 2011, and to a further 85,150 in 2012. The increase in OPD attendance in the district between 2010 and 2012 is expressed graphically by figure 4.6.6.4C.

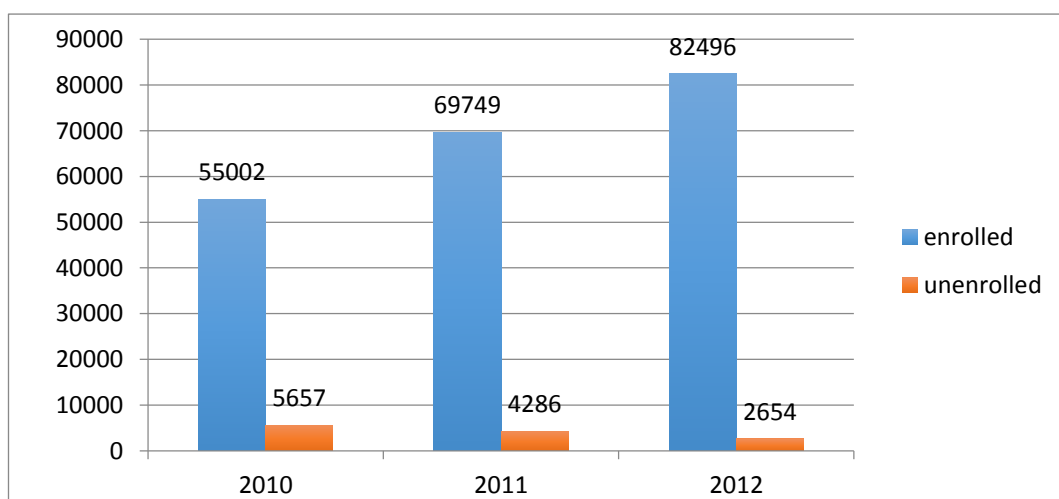
Figure 4.6.6.4C: OPD visits in the Jirapa district between 2010 and 2012



GHS (2012)

Statistics obtained from the 2012 district health report goes a step further to show that the majority of clients who visited health facilities in the Jirapa District during the same period were NHIS card holders (GHS, 2012). These statistics confirm earlier research findings, which suggested that increased enrolment in the NHIS has had a commensurate increase in the service utilization (Schieber et al., 2012b, NHIA, 2012b, NHIA, 2013c, NHIS, 2013, MoH, 2014, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Chankova et al., 2010, Durairaj et al., 2010a, Witter and Garshong, 2009c, Mensah et al., 2010). Figure 4.6.6.4D represents the OPD attendance for insured and uninsured clients for 2010, 2011 and 2012. The figure shows an increase in OPD attendance for the period from 55,002 in 2010 to 82,496 in 2012. It further shows a decline in the number of unenrolled clients from 5657 in 2010 to 2654 in 2012, indicating clearly that as the OPD attendance of the insured increased the number of clients visiting the OPD without insurance decreased.

Figure 4.6.6.4D: OPD attendance trend for insured and uninsured clients



GHS (2012)

While this may suggest that the scheme's coverage in the district favours vulnerable groups the lack of disaggregated data on facility visits by clients made it impossible to firmly establish the proportion users who are urban, rural, and poor or a combination of these. As indicated earlier, exemption from premium payment on its own would not necessarily guarantee utilization of health care services. Salisu and Prinz (2009) observed that one quarter of the population of Ghana live over 60km from a health facility where a doctor can be consulted. In this regard, some rural residents although enrolled may still not be able to access health services due to the costs of long distance travel to health facilities. Others may have refrained from using health facilities because of dissatisfaction with quality of health care provided (Atinga et al., 2015, Atinga, 2012a, Akazili et al., 2012, Akazili et al., 2014, Mills et al., 2012b, Jehu-Appiah et al., 2011a).

4.6.6.5 Improved Maternal Health Indicators

Contrary to Schieber et al. (2012b), maternal health indicators showed a significant improvement in utilization of maternal health care services between 2009 and 2013. This is credited to the free services the scheme offers pregnant

women. The Free Maternal Care programme was introduced in July 2008 to contribute to meeting the Millennium Development Goals (MDGs) 4 and 5 FMC. Under this programme, pregnant women receive free medical care (NHIA, 2012b, NHIA, 2010). The table 4.6.6.5A shows the registration statistics under the FMC between 2008 and 2013. It shows fluctuations in registration between 2008 and 2011, but recorded a remarkable increase in 2013. The figures for 2008 and 2009 need to be treated with caution because the methodology used by the NHIS for calculating enrolment during this period was wrong, making such data unreliable.

Table 4.6.6.5A: Enrolment trend under Free Maternal Care (FMC)

Year	New members registered
2008	421,234
2009	383,216
2010	504,609
2011	485,460
2012	754,658
2013	774,009

(NHIA, 2013b)

At the district level, there have also been sustained improvements in antenatal and post-natal care during the same period. Table 4.6.6.5B shows that antenatal care visits increased from 78 percent of the total registrants in 2005 to 98.2 percent in 2012. Similarly, post-natal care increased from 81.7 percent of the total number of registrants in 2010 to 89.2 percent in 2012. Supervised delivery on the other hand decreased from 81.8 percent of the total number of registrants in 2010 to 79.1 percent in 2011, and only increased slightly to 82.5

percent in 2012. However, whereas antenatal registration recorded an impressive 98.2 percent, and post-natal care showed remarkable improvement, the drop in supervised deliveries suggests that there might be other associated barriers to maternal health services that are not financial. Lack of transport services for rural residents (Macha et al., 2012, Apoya and Marriott, 2011) and poor quality of care (Atinga et al., 2015, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c) have been associated with unsupervised deliveries.

Table 4.6.6.5B: Maternal health care services utilization rates in the district (%).

Description	2003	2004	2005	2009	2010	2011	2012
Antenatal care	84	92	78	94	91.4	92.9	98.2
Supervised delivery	67	76	71	84.6	81.6	79.1	82.5
Postnatal care	65	71	69.4	83.4	81.7	79.5	89.2
TBA delivery	39	43	35.6	20.8	13	8.4	4.2

Based on 2005 - 2012 annual reports of the Jirapa District Health Service

Figure 4.6.6.5: Maternal Health trend: 2003-2012

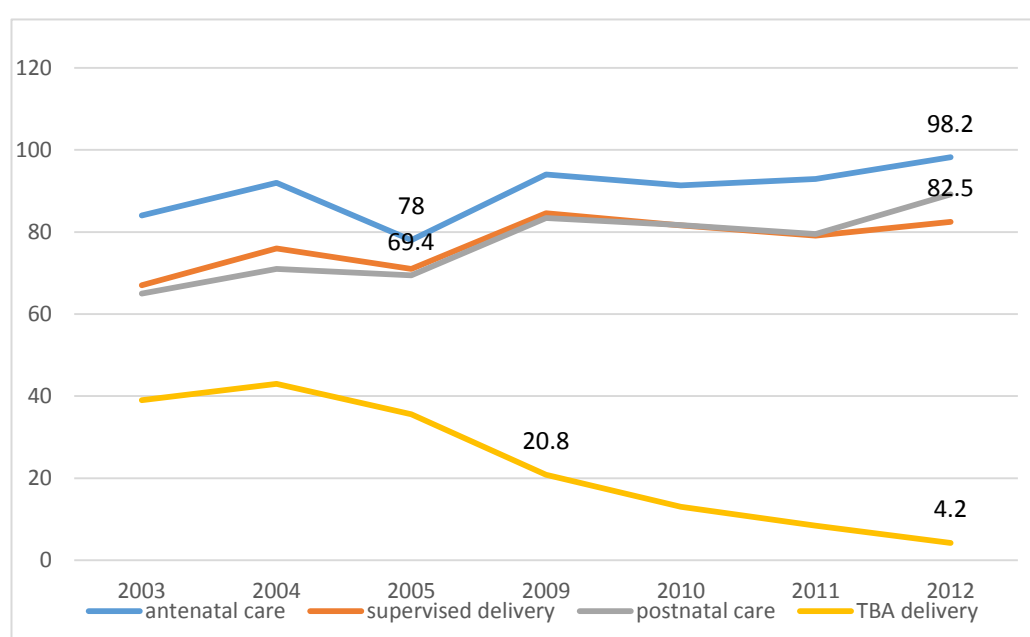


Figure 4.6.6.5 shows a strong relationship among the four maternal health indicators, where an increase or decrease in antenatal care had an associated increase or decrease in supervised delivery, postnatal care and TBA delivery. It is also visible from the graph that as a result of increased access to maternal health care between 2009 and 2012 there has been a steady decline in the number of TBA deliveries in the district to as low as 4.2 percent in 2012. This decline is remarkable given that the average rate of TBA delivery between 2003 and 2005 in the district was 39.2 percent. According to health care providers the decline in the number of unsupervised deliveries is the consequence of the provision of free maternal care by the NHIS. They cite distance and poor transport services to health facilities as reasons why some pregnant women are forced to deliver at home, and this happens when they go into labour unexpectedly. This however, does not discount the suggestion by nurses, pregnant women and the TBAs that the friendliness of TBA care still makes them a preferred source of care to a significant number of pregnant women in the district.

4.6.7 Other challenges of implementing the NHIS

Aside from the scheme's financial sustainability highlighted above, the NHIA 2012 annual report observed that in spite of the notable achievements, there are challenges working against the smooth transition of the scheme to universal coverage. Some of these include weak Health Management Information System (HMIS), poor ID card management and slowness of the ICT system and quality of care.

A notable challenge confronting the NHIS has come in the form of a weak Health Management Information System (HMIS) at all levels of the health sector

(Schieber et al., 2012b). This leads to poor claims management and quality assurance, high administrative costs, and incomplete information on enrolees and providers (Schieber et al., 2012a, Durairaj et al., 2010b). Unlike Britain's computerised NHS, Ghana's NHIS accounting, recording and reporting systems are paper-based. The problem with the paper-based system is that it slows down claims processing and delays reimbursement of providers for the services billed to the DMHIS. During the year 2013 for example, the average claims payment period was 122 days. Claims for two regions for October and the entire claims for November and December 2013 for all providers were delayed due to late submissions of claims (MoH, 2014). It is important to highlight this challenge because it has become a perennial rather than a one-off occurrence. One of these was a 2007 World Bank review of provider reimbursement in two regions, which revealed that the average time taken for providers to receive payments from the DMHIS is 2.5 months (World Bank, 2007). And as of the close of 2008 the scheme owed health facilities to the tune of US\$34 million, and with up to six months delay in payments, some facilities were reported to have turned away NHIS insured clients (Apoya and Marriott, 2011). Although this problem has not been highlighted in recent reports published by the NHIS, the Ministry of Health in its Holistic Assessment of the Health Sector Programme of Work for 2013 observed that it remains a challenge that is limiting the quality of care that facilities can provide. The paper-based system also makes it difficult to profile the trends in the claims made by providers in order to check outliers for potential fraudulent activity. 'In certain respects the scheme could be seen as a provider's dream: 95% of health conditions covered with payment methods that offer few or no incentives to contain costs' (Apoya and Marriott, 2011:29). Thus, the need to improve HMIS at all levels of the

Health sector as a complementary cost containment and prudent spending mechanism should be made top priority by the NHIA and the Ministry of Health.

The NHIS to date does not have a standard ICT platform to efficiently process enrolment data or provide systematic and disaggregated data to inform relevant health policy decision making. This weakness reflects the contradictory nature of health information in Ghana with different institutions presenting differing coverage figures and differential claims on the success of the scheme. In the year 2008 for example, while a Ghana National Development Planning Commission study showed that active membership of the NHIS was about 47.9 percent (NDPC, 2009), NHIA claimed that active membership coverage for this year was up 61 percent of the total population (NHIA, 2009a). Again in 2011, an Oxfam study challenged and labelled the NHIA membership coverage figure of 62 percent of the population as exaggerated, highly inaccurate and misleading and suggested that the coverage could be as low as 18 percent (Apoya and Marriott, 2011). Oxfam's disapproval of the figures was based on two methods used by the NHIA to calculate the proportion of the population covered; the first was the use of the 2004 total population figure of 22,902,598 as the denominator for calculating the proportion of the population registered. This is a flaw because the estimated population of Ghana as of 2008 was 23, 110, 8011. The use of lower total population figure increased the percentage of people enrolled by the scheme. The second method used by the NHIA was to count renewals, expired registrations; multiple registrations with different schemes due to relocation, and even those who had died were still counted as active members. The reason this error occurred was because the scheme and the health facilities do not have a standard ICT platform to efficiently process enrolment data. While the NHIA did admit to inaccurate calculation of the

scheme's coverage of the population, it disagreed with Oxfam's claim that the coverage was as low as 18 percent, accusing Oxfam of using crude methods to calculate the active membership of the NHIS. This background of contradictory data and differential claims of the success of the scheme leaves a research gap that this study attempts to address; to explore the extent to which the scheme's coverage has expanded especially to the poor in rural areas, and this involves taking a critical look at the methodologies employed by the scheme and other institutions to calculate the active membership figure for the NHIS. The denominator for calculating the percentage of registered members has to be a projection based on the most recent National Population Census figures. Secondly, calculation of current members must include only new registrants and renewals. The best way to get this done is through investment in up-to-speed Information Communication Technologies (ICT) that have the appropriate software systems to not only add new registrants and update renewals, but such a computerised system should be able to provide disaggregated data on enrolment patterns, service utilization trends and profile the trends in the claims in order to check outliers for potential fraudulent activity.

4.7 Summary of chapter

This chapter did three main things in relation to the evolution of health financing in Ghana. The first section gives a brief description of the geography, demography and economy of Ghana, including a brief profile of the Jirapa district. The second section examined the various phases of the evolution of health financing in Ghana, in which I argued that the various phases of the process was influenced by the economic circumstances of the country at the point in time.

The NHIS has made good progress so far and covers 38 percent of the total population of Ghana. Apart from increasing financial access to health care for Ghanaian residents the scheme is credited with improvements in the health-seeking behaviour of many people in the country with membership of the scheme and utilization of health care services by its members growing significantly. The scheme has also accredited 3,822 public and private health facilities and accounts for more than 80% of service delivery income of public and quasi-public healthcare facilities. Available data also show a consistent increase in utilization of health care across the country with over 80 percent of users having health insurance (NHIA, 2012a, GHS, 2011).

These achievements notwithstanding, the NHIS faces many challenges, including a benefits package that critics describe as being too generous and financially unsustainable. Without co-payments from the large exempt population seeking health care, the scheme may struggle to purchase health care services in the medium to long term. Some critics have also argued that the stringent definition of indigents leaves behind some poor and near-poor. Additionally, the lack of HMIS result in poor claims management and quality assurance, high administrative costs, and incomplete information on enrolees and providers. This slows down claims processing and delays reimbursement of providers for the services billed to the DMHIS.

Chapter five

5.0 Research methodology and design

5.1 Introduction

The previous chapters have laid the foundation for the thesis in terms of rationale and objectives, but also in terms of theory, relevant conceptual literature as well as an overview of the health system in Ghana. This chapter provides a detailed description of the methodology and the philosophical orientation of the thesis. It reflects on the rationale for adopting a pragmatic approach, the sampling strategy and the instruments used for data collection. The chapter also reflects on the challenges faced in the process of collecting and analysing the data, as well as synthesising the quantitative and qualitative results. Some of the ethical issues that came into play during the fieldwork are described in the final part of the chapter.

5.2 Methodological foundations of the study

This sub-section is concerned with the philosophical orientation of the study. The philosophical orientation not only provides guidance in appropriately locating the research topic but it also influences the choice of research instruments (Onwuegbuzie and Leech, 2005). This research adopted a pragmatic approach that not only used both quantitative and qualitative research methods but also made good use of the inherent diversity of the data analysed. Pragmatism was relevant because it reflected the strategy of this research, to use a mix of different research methods and modes of analysis in an iterative way to construct knowledge (Creswell, 1994, Creswell, 2009, Tashakkori et al., 2005, Teddlie and Tashakkori, 2012, Onwuegbuzie and

Leech, 2005). It involved a sequential explanatory approach which began with the collection and analysis of quantitative data, and followed up with the collection and analysis of in-depth interviews and observation data as well as secondary analysis. An important point to stress is the iterative process of collecting and analysing the data. This implies a back and forth collection and up-dating of official statistics from secondary sources and from important official reports to help clarify or strengthen some of the arguments made in the thesis. The advantages of mixed methods from the point of view of this thesis are discussed in the ensuing sections of the chapter.

The complimentary use of quantitative and qualitative techniques was driven by the eclectic nature of the research questions, which required the generation of quantitative data from users of health care services (enrolled, previously enrolled, and never enrolled individuals) and integrating it with qualitative data obtained from users, providers and management of health care services. By using this bi-focal lens, like Macha et al. (2012) did, the household survey with users gave a wider scope of the issues under investigation, while the interviews made it possible to 'zoom in' for more insight into the factors that determine or impede access to health insurance and health care in the district.

Mixed methods are also a useful way of developing the analysis and building on initial findings using contrasting kinds of data or methods (Onwuegbuzie and Leech, 2005, Creswell, 2009). This research employed the sequential explanatory design, where the follow up qualitative data collection and analysis was informed by the initial quantitative data collection and analysis: the design of semi-structured interview guides and the observation strategy used, were based on the results obtained from the quantitative data analysis. In this

connection, some interesting commonalities, contradictions as well as surprising results that emerged from the quantitative analysis were factored into in-depth interviews and investigated more thoroughly. Surprises such as distance not being a barrier to some rural participants, ambulance service not being part of the benefits package, poor attitudes of midwives towards pregnant women from rural areas, selective enrolment by poor households, were taken on board and investigated thoroughly using in-depth interviews.

Mixed methods approaches have often been used by pragmatic researchers to aid in sampling research participants. When using a sequential explanatory strategy, for example, questionnaires can be used to screen and select interview participants (Creswell, 2009, Denscombe, 2008). In this research, all the users of health care services who participated in the semi-structured in-depth interviews were purposively selected during the quantitative questionnaire administration phase. I particularly wanted to interview users of health care services who had at least a fair knowledge of the health care delivery system in the Jirapa district who were willing to share their knowledge with me. I was also particular about their location as a way of ensuring that the views of urban and rural residents were reflected in the findings. Gender was an important factor in the identification of interview participants; the views of pregnant women on the free maternal care under the NHIS was important to this study. The other factor that influenced the selection of participants for interviews was the health insurance enrolment statuses of participants. The rationale was to ensure that the findings from interviews reflected the views of all three categories of health care users (enrolled, previously enrolled and never enrolled individuals). Thus, the survey phase which preceded the qualitative interviews presented an

opportunity to identify interview participants and schedule interview dates and times with them.

Denscombe (2008) synthesized the various pragmatic approaches that arise from reviews of existing mixed methods research (Bryman, 2006; Greene et al., 1989; Rocco, Bliss, Gallagher, & Perez-Prado, 2003; Collins et al. 2006), and observes that while some social researchers use mixed methods to improve the accuracy of their data, others use mixed methods to produce a more comprehensive picture by blending data obtained from complementary sources. A relevant example is a mixed methods study by Macha et al. (2012:2), who in their quest to understand the factors influencing health care financing and benefit incidence patterns in Ghana, South Africa and Tanzania, combined qualitative focus group discussions and in-depth interviews with quantitative household surveys in each country. By employing mixed methods they were able to explore enrolment in voluntary health insurance schemes and out-of-pocket payments in all three countries. They were also able to examine access barriers to care through dimensions of affordability, availability and acceptability of health care services. They collected and analysed quantitative and qualitative data concurrently as a triangulation strategy to corroborate and confirm results. Similar studies (Suraratdecha et al., 2005, Pannarunothai and Mills, 1997, Akazili et al., 2012) have all used mixed methods with the primary objective of providing a complete picture of the subject being investigated as well as improving the accuracy of the data generated. While achieving improved accuracy, the use of mixed methods enabled this thesis to produce a good picture of the differences in determinants of access to health insurance and health care in the Jirapa district.

Notwithstanding the strengths of this research strategy, Robson (2011) expresses concern about the danger of pragmatic researchers carrying out incoherent projects that may fall short of a rationale and be of dubious validity. That worry has been addressed in this study with a clear explanation of the purpose of the study. Besides, the methodology employed for the study was thorough and coherent, and that helped to adequately address the research objectives. In the spirit of the approach adopted for this research, however, it seems appropriate to give a self-reflective account of how the research process evolved; the length of time spent on data collection and analyses was long (Creswell, 2009, Creswell, 2013). I did nine months in the field, of which I spent several weeks collecting and analysing the quantitative data and followed that up with many more weeks collecting and analysing qualitative data. It was not just a laborious process, the analysis and integration of findings required some expertise which I did not have at the start of the work; developing the needed expertise took a considerable time. The process had cost implications as well, and although I lived with my parents during the fieldwork and did not have to pay for accommodation, cost of transportation to Jirapa and to the study communities, allowances for field assistants drained my coffers.

5.3 Negotiating access to the research area

Many research projects are carried out in settings where a formal agreement is required to gain access (Robson, 2011). Lindsay (2005:121) observed that negotiating access to a sample with a survey research project is crucial. "The presentation of both the research and the researcher to stakeholders, gatekeepers, and the participants themselves is the background work of research." To gain access to young workers, Lindsay had to present the

objectives of her research to different stakeholders and gatekeepers and each of these had to be convinced of the value of the research and the credibility of the researcher. In a similar way, negotiating access with different stakeholders was a vital element in the successful execution of this thesis. This was done at the regional and district levels of the NHIS and the Ghana Health Service. At each stage I persuaded participants by presenting the research as arising from concerns expressed by health workers and rural residents during my time with ACDEP as a health project officer. This dispelled any fears that I was perhaps one of those researchers snooping to find faults with the system they work in. I needed permission at the regional level, the district and the sub-district levels. And so, I wrote formally and obtained permission from the Regional Director of Health Services to interview health workers and observe health care provision in selected health facilities in the Jirapa district, of which he had oversight responsibility (see appendix 4). I also formally requested and obtained permission from the Regional Manager of the NHIS to carry out the survey on the scheme in the Jirapa district. Having obtained the consent of the Regional Heads, I then persuaded the District Director of Health Services and the Manager of the district health insurance scheme and got their support and acceptance.

5.4 Sampling strategy

Sampling, according to Varkevisser et al. (1993:195) *“is the process of selecting a number of study units from a defined study population.”* This study employed a multi-stage sampling strategy; this is often used in community-based studies, in which people are to be interviewed from different villages, and the villages have to be selected from different areas (Varkevisser et al., 1993). In this study,

multi-stage sampling was employed for the selection of the study district, sub-districts, villages within the catchment area of the sub-districts, and in selecting participants. It is important to mention at this point that the sample size was not representative of the population of the district to enable generalization of the findings to other districts in Ghana. Rather, it presents views and perceptions that reflect the different groups of health care users and other stakeholders in the Jirapa district. The findings of this study may however provide a basis for a large scale representative study on the differences in perceptions of access to health care and health insurance between urban and rural residents.

5.4.1 Rationale for selecting Jirapa District

It is worth highlighting that my decision to do this research in the Jirapa district was not a random one. I had some connection with the district prior to the study, which gave me confidence that negotiating access was not going to be a challenge. I must mention that prior to the commencement of this degree, I worked with the Association of Church-Based Development NGOs (ACDEP), as a Health Project Officer, in charge of a collaborative project on traditional medicine with the Jirapa District Health Services. I had developed strong ties with key gatekeepers such as the District Manager of the Scheme, The Deputy District Director of Health Services and some Heads of sub-district Health Centres. Thus, my familiar face and the good working relationships we had developed during my previous role together with the perception that the study was not a sensitive one, made Jirapa district a suitable study area. Yet, aside from the ease of access to the area, I also wanted to interview Traditional Health Practitioners, and the Jirapa district happened to be the only district in the Upper West region that had associations of Traditional Health Practitioners

working in collaboration with the Health Centres. In my previous role as a Health Project Officer, I worked with these groups in relation to efforts toward integrating traditional medicine into the national health system, but I also wanted to find out their views about the operations of the NHIS, and whether they can possibly play a role in terms of increasing primary health care provision.

5.4.2 Sampling of sub-districts

Once the green light to get into the district was given the next stage of the sampling process was the identification of sub-districts. Four of a total of seven sub-districts in the district were purposively selected for this study. These include; Jirapa Urban, Douri, Yaga and Tuggo. The selection of these sub-districts was informed by the nature of the research questions: a focus on rural-urban differences in access to health services. Thus, geographical location was instrumental in the selection of sub-districts. For the purposes of this study, remoteness from health services was defined as over 5 km from a health facility. A health facility is described as near if it is less than 5 kilometres from the user's place of residence (Jordan et al., 2004). Jirapa Urban sub-district was selected because Jirapa it is the only urban place in the district. The Jirapa urban health centre is located at the heart of Jirapa town, just about a kilometre away from the district hospital and less than two kilometres away from the district NHIS office. This gives urban residents a locational advantage over those who reside 5 kilometres or more away from the district hospital in particular. Convenience of location and the absence of transportation costs may have a positive influence on access to health care and health insurance. The opposite may be the case for people who reside in villages located 5 kilometres

or more from Jirapa town. Community-based Health Planning and Services (CHPS) were not included in this study because of the limited range of services provided by these facilities, and fact that some sub-districts do not have CHPS facilities to ensure uniformity in the order of sampling.

Douri, Yaga and Tuggo sub-districts on the other hand are rural and remote from Jirapa town. These sub-districts were described by an official of the district NHIS as the most difficult areas the scheme has struggled to penetrate. Each of these three sub-districts is more than 5 kilometres of travel distance to Jirapa, district capital. Coupled with the limited access to transport services to remote localities in the district (GHS, 2012), the study aimed to assess whether long distance and the associated transportation costs to the district hospital in Jirapa is a barrier to access to health care. Other reason for the choice of remote sub-districts was to assess the staffing situation in these places. It has been argued in the literature that high cadre health professionals are not accepting postings to remote places leading to uneven urban-rural distribution of health personnel (Schieber et al., 2012b, Apoya and Marriott, 2011, Saleh, 2012, Mensah et al., 2010). Thus, the study aimed to obtain information on staffing in remote places and to compare it with staffing in the Jirapa urban health centre. The assumption is that differences in staffing strengths may also impact on perceptions of access and quality of health care provision in urban and rural areas. Additionally, Douri, Yaga and Tuggo sub-districts are also known have strong traditional belief systems and residents prefer traditional medicine to modern health care services. Interestingly, traditional medicine is still not fully integrated into the health care delivery system, and preference for it might have a negative effect on enrolment in the NHIS.

5.4.3 Sampling of villages

In each of the four sub-districts, three villages were purposively selected. These included the village where the health centre of the sub-district is located, and two other villages that are without a health facility. A total of twelve (12) villages were sampled for the study, with four having health centres, and eight without any health facilities. The selected eight villages (villages without facilities) were also 5 kilometres or more away from the nearest health centre. The idea behind such purposive selection was to focus on the geographic aspect of health care provision and to compare perceptions of access between users located close to health facilities and those located far away from them. The theoretical argument is that in resource poor settings households would not regularly access health services if health facilities are located far away from them (Peters et al., 2008, Buor, 2005, Buor, 2003, Aday and Andersen, 1974b). There was no reliable data on the population of villages and for that matter population size was not a criterion for selecting villages. Selection was mainly based on villages that have health centres and those that are more 5 kilometres away from the nearest health centre.

5.4.4 Sampling of participants

Sampling of research participants was done in two phases. The first phase involved the selection of participants for the survey, and the second was the selection of participants for interviews.

5.4.4.1 Survey sample

Starting with survey participants, again, the aim was to ensure that various categories of users of health services (e.g. currently enrolled, previously

enrolled, never enrolled, women, indigents) participated in the study such that the findings would reflect their input. Selecting a sample size that is representative of the population of the villages and the district was not the basis for determining the sample size. A total of 180 users of health care services were purposively selected from twelve (12) villages for the survey (see appendix 3). The number included 60 enrolled, 60 previously enrolled and 60 never enrolled individuals. The initial plan was to recruit 15 participants from each village that would include 5 enrolled, 5 previously enrolled and 5 never enrolled participants. However, two villages (Goziel and Kul-Ora, which seemed to be less populated) had 12 participants each, and therefore the remaining 6 questionnaires were passed on to Jirapa Central where there were many people willing to participate in the study. Selection of participants for the various categories of users was on the basis of proportionality; thus, in each village the same number of participants was sampled for each category (currently enrolled, previously enrolled, and never enrolled). At least one indigent was selected in each village irrespective of their enrolment status.

The district has a female population of 53 percent against 47 percent males (GSS, 2014, GSS, 2012). To reflect the gender composition of the population of the district, the study obtained a sample size of 55.6 percent females and 44.4 percent males. Yet, aside from obtaining a sample size that reflects the gender composition of the population, the study has a particular interest in the participation of pregnant women and Traditional Birth Attendants. In the normal order of things, pregnant women would use health care services frequently, but since 2008 they have had entitlement to free maternal care under the NHIS. The study therefore aimed to ascertain whether the removal of financial barrier to maternal care had a positive effect on utilization health care.

The initial plan was to establish contact with the district office of the NHIS and to use the platform to identify these participants (snowball sampling). Rather fortunately, after my first meeting with the district management team I was assigned one of their temporary staff (Vitalis) to assist in sampling participants for the study. Vitalis had the geography of the district at his fingertips, but what made working with him very helpful was his ability to establish contacts with all the Community Agents within a short time and he passed the necessary information about the type and number of participants needed for the survey. He also communicated dates and times for the survey for each of the villages to community agents. On the part of community agents, it was a straightforward sampling task because they had full records of active members and those whose membership had expired, but they also knew residents who had never joined the scheme.

5.4.4.2 Sampling of interviewees

Semi-structured in-depth interview participants were selected on the basis of their ability and willingness to share information needed for the study. They included users of health care services, health workers, NHIS officials and community agents, Traditional Health Practitioners, who in my judgement could provide rich and relevant information.

As indicated earlier, users were selected for the interviews during the initial quantitative study. According to Bryman (2012), one of the ways in which a quantitative phase of a study can pave the way for the qualitative phase is for it to serve as a platform to select interview participants. Altogether, twelve users, including six females and six males were interviewed. One of the male interviewees was an indigent who agreed to participate in the study when he

was selected. Aside from getting a gender balance, a number of other factors influenced the selection of users for the interviews. Locality was a factor, and nine participants were selected from rural villages, and the other three were urban residents. This was in recognition of the fact that Jirapa is the only urban area in the district and the rest are rural. The selection of interview participants was also influenced by the enrolment status participants, yet it has to be stressed that participants' understanding of the health issues in the district and willingness to participate in the study was a key factor. This was determined during the questionnaire administration where I particularly looked out for participants who sounded fairly conversant with the issues around access to health care and the barriers to access to health care services in the district. Although twelve users were interviewed, I had initially selected eighteen users (six on standby to replace participants who may dropout). Fortunately however, all twelve interviewees were available, and actively participated in the interviews.

In addition to obtaining a reasonable representation of all categories of users (currently enrolled, previously enrolled, and never enrolled), the twelve interviewees were selected from the four sub-districts. Each sub-district had three participants: enrolled, previously enrolled and never enrolled. From this number, two (a female and a male) were selected from villages that did not have a health centre, and the third interviewee was selected from the village that has a health centre.

In addition to interviewing users, four Heads of sub-districts health centres were also interviewed for this thesis. They were selected on the grounds that they had detailed information on the issues concerning access to health care and

health insurance in their sub-districts and the district as a whole. After approval for the study was given by the District Director of Health Services , I visited all the four sub-districts and had brief meetings with the Heads. The purpose of the visits was to get their consent to participate in the study as well schedule dates for interviews. Fortunately, all the four sub-district heads agreed and participated in the study. In addition to the sub-district heads, a district public health nurse, a midwife at the district hospital, a medical doctor, officials at the regional health secretariat, and two officials and two agents from the NHIS were also interviewed. These participants were sampled for the study because their respective positions and roles in the health system made their contributions relevant in addressing the research questions.

Traditional Health Practitioners who participated in this study were sampled through snowballing. As mentioned earlier, each of the seven sub-districts in the Jirapa district has a group of Traditional Health Practitioners affiliated to them. To access Traditional Health Practitioners without much difficulty I relied on the sub-district heads to introduce me to them to initiate discussions about the possibility of interviewing them for the study. In all, eight Traditional Health Practitioners were recruited for the study. They included four Traditional Birth Attendants (TBA), three Herbalist, and one Bonesetter. A TBA was selected from each sub-district. The three herbalist came from Tuggo, Yaga and Douri sub-districts, and the bonesetter was selected from Gbare in the Jirapa Urban district. Appendix 9.2 shows participant distribution and data collection methods employed in the study.

5.5 Preparation for data collection

Aside from designing the field questionnaires, the other pre-field activities included recruitment and training of field assistants, and piloting of questionnaires. Three field assistants were recruited in addition to Vitalis, making four in total. All of them were recruited on the basis of having prior experience of questionnaire administration in similar household surveys. They were also recruited on the basis of language skills; they speak the local language (Dagaare) and have a good command of the English language. The training was delivered in Dagaare and the focus was on improving their interviewing skills. I also went through the entire questionnaire with them to make sure they all had the same level of understanding of the questions. Another important aspect of the training was for the field assistants to practice interviewing in the local language and this enabled me to smooth the rough edges before embarking on the fieldwork.

Before the commencement of the survey, the questionnaires were piloted to fifteen purposively selected participants. According to Robson (2011) the development of a structured questionnaire necessarily involves piloting to throw up some of the hidden problems in it. The feedback and comments from the pilot exercise highlighted problems of ambiguity in some of the questions, and such questions were revised and restructured accordingly.

5.6 Collecting the data

As established in the early sections of this chapter, the eclectic nature of the research required the sequential use of, first, survey questionnaires to generate quantitative data, followed by semi-structured interviews and observation to

generate qualitative data. Secondary sources also provided relevant data to compliment the primary data. In the paragraphs that follow, I explain why and how the data were collected, analysed and synthesised into a coherent whole to answer the research questions.

5.6.1 Survey questionnaire

The survey phase of the research commenced immediately following the pre-test and modification of the questionnaire. Since the residents are mostly farmers, the survey was timed to coincide with the dry season (off farming season) so that participants would be available to take part in the study. The survey method has been widely used in studies seeking to assess equity of access to health insurance and health care services (Jehu-Appiah et al., 2011c, Mensah et al., 2010, Nketiah-Amponsah, 2009b, Jehu-Appiah et al., 2012, Gobah and Liang, 2011b, Goudge et al., 2012b, Macha et al., 2012, Mills et al., 2012b, Akazili et al., 2012), and willing to pay for health insurance and community pre-payment schemes in developing countries (Dong et al., 2003, Dong et al., 2004, Bärnighausen et al., 2007, Onwujekwe et al., 2010, Asgary et al., 2004, Goudge et al., 2012a, Mathiyazaghan, 1998, Asenso-Okyere et al., 1997).

In this study, a structured questionnaire was designed based on a questionnaire developed by the EU-African University Network (Promhiahfrica, 2009). Whereas the previous questionnaire was designed to assess the strengths of community-based Micro Health Insurance in Africa, the questionnaire for this thesis was modified to assess differences in determinants of enrolment in the NHIS and access to health care in the Jirapa district. In this connection, questions that were not related to the objectives of this thesis were removed. Some questions

relevant to the research questions that were included in the Micro Health Insurance questionnaire were retained. For example, questions about the livelihood activities of participants, the inclusion of traditional medicine, and the introduction of open-ended questions are all modifications to the original questionnaire. Additionally, the categorization of participants into presently enrolled, previously enrolled and never enrolled was adopted from Jehu-Appiah et al. (2011c) conceptual model.

The first section of the questionnaire generated participants' biographical information such as age, sex, occupation, education, religion, marital status, place of residence, self-perceived health status, insurance status, assets, incomes and expenditures. The second part of the questionnaire was structured to obtain participants' perceptions of access to health services in relation to the four thematic dimensions of access to health services: accessibility, availability, affordability and acceptability.

Geographic accessibility related variables covered aspects such as the convenience of location of services and administration. Financial accessibility related variables covered aspects of cost of premiums and services, households' financial resources and ability to pay, and the existence of financial solidarity. Availability related variables addressed aspects of service delivery adequacy, quality of care and staff courtesy, while acceptability and health beliefs and attitudes related variables covered participants' understanding of health and risk sharing principles of insurance and their attitudes and expectations. Acceptability also covered participants' perceptions and preferences for services provided by traditional medicine practitioners. It is important to indicate that although most of the questions were closed-ended a

few open-ended questions were included where necessary to encourage participants to bring up issues they wanted to talk about that were not included in the questionnaire.

In all, 180 participants were interviewed for this survey. They included 60 enrolled, 60 previously enrolled and 60 never enrolled individuals sampled from twelve villages in four sub-districts. Appendix 3 gives a distribution of sub-districts, villages and participants in the survey. It is important to emphasise that the sample size was not representative of the population of the district to enable generalization of the findings to other districts in Ghana. It was mainly intended to obtain a reasonable coverage of views and perceptions that reflect the different groups of health care users; rural and urban residents, insured and uninsured users.

5.6.1.1 Quantitative data processing and analysis

Analysis of the quantitative data was done using SPSS, STATA and Excel. Whereas SPSS was appropriate for breaking down the complex survey data, STATA was used to create wealth index for socioeconomic status. Excel was convenient to use to create graphs based on numerical data that was extracted from secondary sources. The initial stage of SPSS analysis involved coding the data, setting up the data entry template and entering the data. Coding was particularly useful in providing advice for editing the questionnaire before data collection. Processing of the results began shortly after the fieldwork commenced and during the month of data collection I would periodically take a day break to process all completed questionnaires. This phase of the survey was completed in March, 2013.

The second phase of the SPSS data analysis involved the production of descriptive analyses of the study components such as the descriptive analysis of the survey sample, descriptive analysis of villages and sub-districts. The SPSS software facilitated the generation of frequency tables for categorical data and created graphs to illustrate the data analysis. I also cross-tabulated some of the categorical variables in order to identify in detail the relationship between these variables.

5.6.1.2 Wealth index for socioeconomic status

The wealth index based on the ownership of household assets was used as a proxy for assessing the economic status of the households (Filmer and Pritchett, 2001, Howe et al., 2009, Montgomery et al., 2000, Rutstein et al., 2004, Vyas and Kumaranayake, 2006) This index was constructed using three key indicators.

1. One is the occupation of the participants. The participants who were in formal employment, had their own private business or were petty traders were coded 1, otherwise zero.
2. The second indicator was the source of funds for premium payment. Respondents who used savings were coded 1, those who used farm produce, or borrowed from friends and/or relatives, were coded 0.
3. The final indicator used was the type of house of respondents. Those who lived in cement houses were coded 1, otherwise 0.

Each household asset is assigned a weight generated through principal components analysis (Filmer and Pritchett, 2001, Vyas and Kumaranayake, 2006). Since the landmark papers of Filmer and Pritchett (1999) almost all asset based wealth indices have used principal component analysis (PCA) for

computing the asset weights. There have been a few attempts to use other techniques for this purpose, but the outcomes differed very little from those using PCA, multiple correspondence analysis or factor analysis. In line with the tradition in the field, the study used PCA for estimating the weights. PCA is a multivariate statistical technique that can be used to reduce the number of variables in a dataset by converting them into a smaller number of components; each component being a linear weighted combination of the initial variables (Vyas and Kumaranayake, 2006). The first component, which explains the largest part of the variation in the data, is chosen as the wealth index (Filmer and Pritchett, 2001, Sahn and Stifel, 2003).

The wealth index was constructed using the following process. An indicator matrix of one and zero was constructed to show the asset ownership of each household as indicated above. Since the households were displayed as rows, each asset was represented by the inclusion of a column for each possible (mutually exclusive and exhaustive) ownership category of that asset. In other words, each categorical asset ownership variable was reduced to a set of binary indicators. In this way, every household will indicate a “1” in exactly one of each asset’s set of columns or categories, and a “0” in all other columns. The PCA was applied to the indicator matrix, which provided a set of category-weights from the first dimension or factorial axis of the analysis results. A household’s PCA composite indicator score was calculated by adding up the weighted responses. The calculation of the household’s asset index score can be represented as follows:

$$PCA_i = G_{i1}K_1 + G_{i2}K_2 + G_{i3}K_3 + \dots + G_{ij}K_j + \dots + G_{ij}K_j$$

Where PCA_i is the i th household's composite wealth indicator score, G_{ij} is the response of household i to category j , and K_j is the PCA weight for the first dimension applied to category j .

PCA estimates a weight for each initial indicator variable, and these estimated weights form the basis for computing the wealth index. The PCA weights are the category loadings in the first principal component arising from PCA (unrotated principal component analysis), and these category-weights are then applied to the normalized responses of the household. A household's score is the sum of its weighted normalized responses. This score serves as a relative measure of wealth for that household, relative to all the households used in the calculation of the weights. The weights reflect the possibility that a household that owns one specific asset also owns one of the other assets in the analysis. For example, an asset which is expensive to purchase is likely to have a high indicator weight, because if a household can afford that specific asset it is likely that it can also afford cheaper assets. The index was further categorized into quintiles and used for health outcomes.

5.6.1.3 Excel analysis

Other relevant data were analysed using Excel. Quantitative data extracted from secondary sources such as statistics on Outpatient Department (OPD) visits, the differences in utilization between insured and uninsured clients, enrolment statistics obtained from the NHIS, were analysed using Excel. For example, Excel was used to produce trend lines to show increases in outpatient utilization health care services trends in the Jirapa district, attributed to the introduction of the NHIS.

The analyses of quantitative data was followed up with semi-structured interviews and observation. The following two sections present 'why' and 'how' semi-structured interviews and observation methods were used in this research.

5.6.2 Interviews

Interviews formed a core part of this research as it provided in-depth information needed to adequately answer the research questions. Semi-structured interview guides (see appendix 6) were prepared and used to elicit information from thirty three (32) interviewees. They included users of health care services, providers of health care services, and officials and agents of the NHIS. Participants were selected on the basis that they had relevant information on the subject and were willing to share. The interviews were done sequentially so that the outcome of the initial interviews informed the design of the interview guides for succeeding ones. This approach was helpful in filling gaps in the data collected as well as exploring some interesting issues that only emerged during initial interviews. The following sections present the processes of conducting interviews with users, providers and management of the NHIS.

5.6.2.1 Interviewing users

Although the interview guide asked general questions on the dimensions of access to health services, some sets of questions were asked based on the enrolment status and location of the participant. Like the quantitative phase, the interviews were conducted during the dry season and this made it easy to get access to participants since they were mostly at home and not on their farms. Interviewees were selected during the survey and to ensure that they had enough time to prepare, interviews were scheduled two weeks in advance.

Interviewees were also given reminders three days to the interviews. The interviews took place at the participants' homes on their request. Most of them chose to do it under shady trees (quiet environments) near their houses, and these lasted between 50 minutes and 1 hour. All interviews were digitally recorded, transcribed and analysed. The interviews with users spanned a period of six weeks. In most cases three users were interviewed in a week. Each interview was transcribed and analysed before the next interview was conducted. In doing so I was able to identify gaps and new emerging issues to explore in subsequent interviews. The results from interviews with users raised some provider-related issues which were taken on board during interviews with health providers.

5.6.2.2 Interviewing health care providers

The health care providers interviewed in this study were nurses, a midwife, medical assistants, a General Practitioner and Traditional Health Practitioners. The medical assistants and the nurses headed the sub-district health centres, and the General Practitioner headed the Jirapa district hospital. I also interviewed a public health nurse, and one official of the Upper West Regional Health Directorate. These participants were interviewed at their various work places on a date and time that was convenient to them. Interviewing at the workplace had the added advantage of creating room to make observations relevant to the research. The interviews lasted between 1 hour and 2 hours and the types of questions varied from one participant to another. Generally speaking, however, health personnel were asked whether the scheme had caused an increase in hospital visits as well as about issues of improved quality of care, which include the availability of drugs and reduced delay of access to

care. I was also interested in assessing the workload of nurses arising from increased utilization of services and how that impacts on the quality of care they provide. They also shared their views on health policy issues such as the urban-oriented system of health and its impact on equitable distribution of services to rural residents.

The information obtained from these interviews was useful in a variety of ways. Firstly, it helped to confirm that the NHIS has caused an increase in utilization of health care services. Secondly, these interviews opened up new areas which were taken up with district and regional officials of the NHIS. Some of these new areas included the absence of some essential drugs on the NHIS Essential Drugs List (EDL) and extra administrative workload for nurses that the NHIS does not pay for.

Traditional Health Practitioners (THPs) were interviewed about their client base, the types of services they provide and their relationships with clients. I was also interested in THPs' working relationships with allopathic practitioners, their understanding of health insurance, risk-sharing and cultural notions of solidarity. The information on their client base and the types of services they offer provided the basis for analysing their relevance in improving primary health care services in deprived rural communities, but also on the possibility of including them in the NHIS.

5.6.2.3 Interviewing NHIS officials

The last group of participants I interviewed were two officials of the NHIS. They were interviewed separately in their offices on days and times we had agreed upon. They were very knowledgeable and showed a good understanding of

their job description. In areas where they had doubts they provided documentary evidence in the form of reports, statistical data and publications. The only difference between them was that, whereas the district official sounded objective in his responses, the regional official was slightly defensive and a bit politically biased in his responses. Irrespective of their objectivity however, their participation in this research contributed in establishing that although the NHIS has caused an increase in access and utilization of health care services there are equity gaps that must be addressed. These two interviews also generated rich data about the operational challenges of implementing the NHIS.

The advantage of interviews in this research is that it created space for the participants to express their feelings, opinions and emotions, but it presented an opportunity to dig beneath the surface for confirmation of information and clarification of issues that were unclear. It was possible to generate rich data that could not have easily been observed or generated using a structured questionnaire. In other studies similar to this, semi-structured interviewing was the main source of data. For example, Agyepong and Nagai conducted in-depth interviews with frontline health managers in connection with the 'health financing policy implementation gaps in Ghana' (Agyepong and Nagai, 2011). Under similar circumstances Gobah and Liang (2011c) interviewed service providers and scheme managers about the effect of the NHIS on access to and utilization of healthcare services in the Akatsi District in the Volta region of Ghana. Mensah et al. (2009) also used interviews to generate information from pregnant women on the evaluation of the NHIS in the context of the Health Millennium Development Goals. In assessing the feasibility of the proposed one-time premium payment policy in Ghana, Abihiro and McIntyre (2012), also

used interviews to explore the understandings of various stakeholders on the policy, their interests or concerns, potential positions, power and influences on it, as well as the general prospects and challenges of its implementation. Witter et al. (2007) also interviewed 65 key informants in the health system at national, regional, district and facility level, including policymakers, managers and providers in an evaluation of Ghana's Implementation of User Fee Exemption Policy to Provide Free Delivery Care. In these studies, the flexibility in using semi-structured interviews gave participants the freedom to talk about the subject in detail while at the same time offering the researcher the opportunity to probe beneath the surface for further explanation and clarification.

5.6.2.4 Qualitative data analysis

Underpinned by the conceptual framework for assessing access to health care services by the poor, the framework approach to thematic analysis was employed to analyse the qualitative data. Unlike grounded theory where themes and theory are expected to emerge from the data analysis, the conceptual framework for this research had four themes that determine health insurance enrolment and access to health care: geographic accessibility, availability of services, affordability of services, and acceptability of services. Thus the analytical process started right from the stage of developing the interview guides where the questions were structured in line with themes embedded in the conceptual framework. A novel feature of the conceptual framework was the assessment of enrolment outcomes and access to health care together using the same dimensions of access.

The next step was to transcribe and familiarise myself with the data. I read through each interview transcript line by line, noting down repetitions,

similarities and differences that were relevant to the research questions. For example, if ‘users’ mentioned lack of money as the reason they dropped out of the scheme, I would write this down under ‘Affordability – lack of money.’ At the margins of each page I wrote down the main themes that had come from the page’s conversation. From this preliminary analysis, I examined the themes a second time and then put them into the four thematic networks as well as any new themes that emerged. For the final phase, I used the soft copies of my transcripts to pull together the segments of data which represented each theme and developed my qualitative analysis by analysing in detail what users, providers, THPs, officials and agents of the NHIS said about these themes and what they signified in relation to the research objectives.

5.6.3 Observation

As peoples’ actions and behaviours are essential in research, an important technique is to “watch what they do, to record this in some way, and then to describe, analyze and interpret what we have observed” (Robson, 2011:315). In this research covert naturalistic observation (observation without intervention) was done alongside the interviews and survey to generate supplementary data to triangulate the results obtained from interviews and survey. Naturalistic observation involves looking at a behavior as it occurs in its natural setting with no attempts at intervention on the part of the researcher (Cherry, 2015). Given that participant observation has the obvious disadvantage of affecting the situation under observation, especially when the participants know they are being observed, covert naturalistic observation made it possible to note down salient points without affecting the situation being observed. Each of the health facilities considered for this study was visited three times, and in each of these

visits observation without intervention was conducted. For example, I wanted to observe the friendliness and quality of service provision at the health facilities. Thus, at each of the health facilities I visited it was not made known to the nurses that in addition to the interviews I was also indirectly observing the length of time patients spent waiting to receive care and the friendliness of the care. I listened to the language used by nurses and midwives; the choice of words to determine whether they were being polite or harsh and nagging in their interaction with patients. I also observed their body language for signs of stress and fatigue in response to the claim (Jehu-Appiah et al., 2011a, Macha et al., 2012) that the unfriendly attitudes of nurses and midwives might be due too much unpaid workload on their shoulders. I equally observed clients reactions to the attitudes of nurses towards them, to ascertain whether it was acceptable to them. By employing this indirect observation strategy it was possible to analyse the differences in the acceptability of care provided in rural health centres and the district hospital.

In the absence of household income records data, for example covert naturalistic observation was also employed to get an idea of participants' socioeconomic status and their ability to pay health insurance premiums. This was executed during interviews with participants at their places of residence. Here, I covertly observed the types of houses they lived in; the material used in building their house. Houses built with mud and roofed with thatch was an indication of the households' low level of income. But it indicated also that members of such households would struggle to pay health insurance premiums. On the other hand however, houses built with cement bricks and roofed with zinc sheets or baked roofing tiles was an indication that such a household was

relatively well-off, and might be able to pay health insurance premiums without much difficulty.

A limitation to naturalistic observation is the ethical concerns related to observing individuals without their consent. To address this problem I debriefed participants after observing them, and got their consent to use the observations for this thesis. Another shortcoming from the perspective of this study was short period of time spent in observing the subjects; naturalistic observation measures would usually require a longer period time to observe the subject in order to draw a reasonable conclusion. As indicated earlier however, this method was employed in this thesis to complement the results obtained from the survey and semi-structured interviews.

5.6.4 Secondary analysis of data

The demands of the research questions made secondary analysis of data a key component of this thesis. The study analysed data from secondary sources such as the 5th and 6th rounds of the Ghana Living Standard Surveys (GLSS 5 and 6), the 2010 Ghana Population and Housing Census report, Annual reports of the Ghana Health Service and the Ministry of Health, and annual reports of the National Health Insurance Scheme. The information obtained from these secondary sources was essential in providing a critical touch to the analysis; it complimented the primary data and helped in providing critical perspectives on the issues around access to NHIS enrolment and access to health care opportunities in the district. The Ghana Living Standard Surveys served as a source of information on the regional distribution of poverty and other socioeconomic data of the country. The 2010 Population and Housing census report served as the main source of socio-demographic data relevant to this

thesis. On the other hand, annual reports from the Ghana Health Service and the Ministry of Health provided statistical data on the distribution of health facilities and personnel both at the region and district levels. These annual reports also provided information on OPD attendance trend nationally and at the district level, as well as utilization of maternal care services in the district. These facilitated an analysis of whether the NHIS had caused an increase in utilization of health services but also to compare utilization rates between the insured and uninsured. The NHIS annual reports also contained data on enrolment trends, active membership by categories, and district level distribution of the scheme's membership.

The main advantage of using secondary analysis of data for this research is that I gained access to good quality data for little personal outlay. There is no chance that I could have generated such data from scratch given the substantial amount of resources and expertise required. The disadvantage of secondary data in this thesis was the inconsistencies, inaccuracies and the many gaps in data which made some analyses problematic. The inaccuracy of secondary data is a typical methodological challenge for research in data-poor context such as Ghana (Borghi et al., 2008, Agyepong and Adjei, 2008). Chapter eight of this study sheds more light on the limitations of secondary analysis in reasonable detail.

5.7 Methodological challenges

These are challenges that relate to data collection and analyses. While the use of mixed methods was very effective in generating the required data to answer the research questions, a number of challenges did emerge in the process. Secondly, the analytic process of combining qualitative and quantitative data

was laborious (Bryman, 2012, Robson, 2011). I spent a total of nine months in the field in order to be able to generate quality data, but this had cost implications. Unfortunately, I managed to secure only £400.00 from my sponsor as funding for the project which was just enough for the survey phase of the data collection process. Constrained by time and finances, I worked with a tight budget, which compelled me to reduce the sample size of the survey participants from the initial 300 to 180.

My attempt to cut costs by trimming down numbers was not helped by the inaccessibility of key interview participants. After four failed attempts to meet the Jirapa District Director of Health Services for an hour's interview I arranged and interviewed her deputy instead. Similarly the regional official of the NHIS selected for the study postponed the interview for six weeks. I had no clue that he was avoiding the interview until one of his officers whispered to me to come to the office at 08:30 without an appointment. The trick worked and although he initially offered to spend only 30 minutes, as he had a meeting to attend, we ended up doing 90. He enjoyed the process as it became clear to him that the research was not digging for information that could cause harm to him or anyone else.

5.8 Ethical issues

It is clear that there are ethical considerations when carrying out research involving people. Whereas for some participants there is potential for harm, others may suffer stress and anxiety (Bryman, 2012, Robson, 2011). In order to address ethical considerations in this study informed consent and reasonably informed consent were sought from the various different participants. Written informed consent was obtained from the Regional National Health Insurance

Scheme and the Ministry of Health Services for the participation of their staff in the research. I wrote to them in January of 2013 and provided sufficient information about the research to enable them to exercise their right to make an informed decision whether or not to allow their staff to participate in the study. Before each of the consent letters was signed I met with the Regional Directors and answered questions about the study and the nature of the data I wanted to collect. I took the opportunity to outline the reasons why certain participants were selected for the study. I also assured them of confidentiality and anonymity in any potential future use of collected data. Convinced that the study would not do harm, cause stress or anxiety to their staff, they signed and dated the consent letters. They made copies for their files, sent copies to the decentralised institutions and the original copy stayed with me in a locked filing cabinet.

I also sought reasonably informed consent from users who participated in the survey interviews, and also Traditional Health Practitioners who participated in the in-depth interviews. They were given information about the study verbally to enable them to exercise their right to make a decision whether or not to participate. I also outlined the objectives of the research, the reasons why they were selected for the study but I also explained to them that any personal data collected during the study will be kept anonymous and confidential. No participant will be named or otherwise identified in publications or any publically-disseminated material. However, the participants' names and other identifiers were recorded on the data collection sheets. Potential research participants were assured that only my supervisor and I will have access to the data record. These records will be kept in a secured location in case of the need for follow up in the future. The records will however be destroyed after three years.

As part of the initial consent agreement, potential research participants were informed about their right to decline participation or to withdraw consent at any stage of the research with no consequences. Potential participants were given explicit information telling them how to reach me to let me know if they no longer wanted to be part of the research. I made it known to them that they had the choice to leave the project, and should feel free to request their data be removed from the project's records. Participants were also given sufficient time to reflect before and after making the decision to join the study. All participants were given a week to make up their mind about participating in the research. No group of persons would suffer from this research project, as it not sensitive to the interests and desires of any group of persons.

However, the use of covert naturalistic observation raised tricky ethical issues that needed addressing. Obviously, there are ethical concerns related to observing individuals without their consent. To address this problem I debriefed participants after observing them, and obtained their consent to use the observations for this thesis.

5.9 Summary of chapter

The chapter presented an overview of the epistemological and ontological foundations of the study, comprising an outline of the pragmatist approach, which blends quantitative and qualitative data collection and analytical procedures known as mixed methods. I argued in this chapter that the complementary use of quantitative and qualitative techniques was driven by the eclectic nature of the research question: requiring the need to generate statistical data from users of health care services and integrate it with qualitative data obtained from providers, management and users of health care services.

The advantage of this approach in this research is that the structured survey provided a wider picture of the users' perceptions of the research questions, while the semi-structured interviews explored beneath the surface for more insight into the factors that promote or impede poor populations' access to insurance and health care in the district. Thus, whereas the survey provided breadth of data, interviews and observation provided depth of data, which collectively made it possible to critically analyse and better understand the dimensions of access to health care services.

The chapter also reflected on the challenges faced in the processes of data collection, analysis and integration. There were many gaps in the official statistics, and disaggregated data were not available. It is also important to highlight that the entire process of collecting, analysing and integrating quantitative and qualitative data and interpreting the findings was extremely challenging in the sense that it requires some expertise. It is also time consuming and expensive. The next chapter presents the first part of the results. This section of the results relate to participants' perceptions of the accessibility of services rendered by the NHIS in the Jirapa district.

Chapter Six

6.0 Results on accessibility of the National Health Insurance Scheme

6.1 Introduction

This chapter presents the first part of the results that relate to accessibility of NHIS services. The chapter is divided into quantitative and qualitative sections. The quantitative results section presents descriptive statistics of the survey sample and goes further to provide a broader scope of participants' perceptions of the accessibility of services rendered by the NHIS in the Jirapa district. The second section of the chapter presents a synthesis of qualitative results that relate to the NHIS. In both sections the results are articulated in consonance with the four thematic dimensions of access to health services; accessibility, availability, affordability and acceptability of services.

6.2 Descriptive analysis of the survey sample

Below is a snapshot description of the characteristics of the survey sample. The characteristics of participants form the basis for critically analysing accessibility of the NHIS and access to health care in the district. For example, the type of houses, livelihoods activities of participants and their sources of funds from which they pay NHIS contributions are analysed to ascertain households' ability to enrol and stay on as members of the NHIS. Table 6.2 provides a descriptive statistics of the survey sample.

Table 6.2: Descriptive analysis of survey sample

Participants	Percentage	
Household	Average	(%)
Household size	7	-
Male		44.4
Females		55.6
Average age		36.0
Urban		11.7
Rural		88.3
Married		71.7
Single		17.8
Education		(%)
No education		61.1
Primary education		20.0
Secondary education		16.1
Tertiary education		2.8
Religion		(%)
Christian		49.4
Muslim		1.1
Traditional worship		47.2
Other		2.2
Employment		(%)
Farming		70.0
Remittances		.6
Petty trade		13.3
Local manufacture		1.7
Labour work		.6
Formal employment		2.8
Private business		.6
Artisan		1.7

Collection	1.1
Other services	5.6
Type of house (social cat. Proxy)	(%)
Mud, clay and thatch	81.7
Partly low/partly high quality materials	13.3
Brick, stone or cement house	5.0
Source of funds for NHIS premium	(%)
Savings	14.4
Salary	2.8
Remittances	.5
Borrowed	10.1
Sale of farm produce	70.0
Others	2.2
Based on Health Insurance Survey 2013	

The household survey comprised 180 participants in total; 60 currently enrolled, 60 previously enrolled and 60 never enrolled. Socio-demographic characteristics of the participants reveal an average age of 36 years. The table shows that the average household size is 7 and 70 percent of participants are into subsistence crop farming, and would pay their NHIS premiums from the sale of farm produce. To reflect the gender composition of the district, 55.6 percent of the sample are females and 44.4 percent are males. Education, measured by level reached in school is low as 61.1 percent of participants are without formal education. The sample is largely rural with 88.3 percent of participants coming from rural areas and only 11.7 coming Jirapa urban. This reflects the population structure of the district in which 86.5 of the population live in rural localities (GSS, 2012, GSS, 2014). An overwhelming majority (71.7%) of the survey sample is married, 17.8 percent is single and 10.5

percent is widowed. The sample had more Christians (49%), 47 percent follows traditional religion and only 1.1 percent is Muslim. The majority (81.7%) of the survey sample live in houses made of mud, clay and thatch, and perceive themselves as being poor.

6.2.1 Sub-districts

The Jirapa district health directorate is divided into seven administrative sub-districts. Four out of the seven sub-districts were selected for this study (see table 6.2.1). An official at the NHIS district office described Douri, Tuggo and Yaga sub-districts as difficult areas to penetrate. Difficult areas to penetrate in the sense that the NHIS is struggling to increase enrolment in these sub-districts due partly to the very limited number of health facilities, which has led to a growing preference and use of traditional medicine in these parts of the district. Unfortunately, traditional medicine is not included in the benefits package.

Table 6.2.1: Sub-districts

Sub-districts	Percent
Duori	25
Jirapa Urban	28.3
Tuggo	21.7
Yaga	25
Total	100.0

Based on Health Insurance Survey 2013

Jirapa Urban health centre provides health care to residents of Jirapa town and its neighbouring communities. Jirapa urban had the highest number of participants (28.3%) largely because it is the most populated of the all the sub-districts, but the ease of access to participants was also a contributory factor.

Tuggo had the lowest number of participants (21.7%) because it has a relatively small population and getting access to the various groups of participants to participate in the study was often a challenge.

6.3 Results of Logistic Regression Wealth Index

Table 6.3: Logistic Regression Wealth Index

Wealth	Coefficient	z
Gender (Male=Ref)		
female	0.04817	1.15
Marital status (married=Ref.)		
single	-0.1347	-2.19**
widowed	-0.0738	-1.03
Locality (Urban=Ref.)		
rural	-0.2262	-3.81***
Religion (Christian=Ref.)		
Muslim	0.19919	1.22
traditional believer	-0.1072	-2.5**
Member of NHIS (enrolled=Ref.)		
previously enrolled	-0.0871	-1.72*
never enrolled	0.02681	0.57
Constant	0.025	
Significance	* 0.1; **0.05; *** 0.01	
Observations	175	
Prob>F	0.000	
R-Squared	0.165	

Analysis based on STATA and Health Insurance Survey 2013

Significance Level: 1 % (***), 5 % (**), 10 % (*).

The results of the logistic regression show that compared to married people being single has a significant negative influence on wealth. This is not far-fetched as married couples are likely to start accumulating assets for the household. The finding corroborates findings in the US which established that married couple households were far better off when it came to economic performance of households as compared to single parented households (Budria et al., 2002, Yamokoski and Keister, 2006, Wilmoth and Koso, 2002)

Expectedly, being in the rural area compared to respondents in the urban area had a significant and negative association with wealth. This confirms GLSS' round of surveys which conclude that poverty in Ghana is disproportionately a rural phenomenon (GSS, 2007, GSS, 2015). Also the level of poverty is found to be highest among food crop farmers (GSS, 2007) which is the main economic activity of the study area. It is, therefore, not surprising that respondents living in rural areas had a negative effect on the wealth index.

Being previously enrolled member of NHIS was also found to be significant. Compared to the respondents currently enrolled, previously enrolled members had a negative influence on wealth. Their inability to renew their membership of NHIS could be explained by the fact that they are asset poor. Also, being a traditional believer had a significant and negative effect on wealth. The reason being that traditional believers tend to reside in the most remote and deprived communities in the district where subsistence farming is the main source of livelihood; the results in table 6.1.4.2B demonstrates that 76.2 percent of subsistence farmers perceive the premiums to be unaffordable.

6.4 Understanding enrolment and drop out of the NHIS

This section examines some factors that influence enrolment in the NHIS. In order to obtain a broader understanding of these factors a first step was to run a frequency distribution of participants' perceptions and knowledge of the existence of the NHIS, the reasons for enrolling, not enrolling and dropping out of the scheme. Regardless of insurance status table 6.4A shows that 98.9 percent of participants had prior knowledge of the existence of the NHIS from various sources.

Table 6.4A: Knowledge of the NHIS

Description	Percent
Yes	98.9
No	1.1
Total	100.0

Based on Health Insurance Survey 2013)

Whereas 30.6 percent of participants first heard about the NHIS from family and friends, 25.6 percent at the hospital, 23.9 percent from the media and 13.3 percent through community sensitization, a few others first got to know about the scheme at the workplace, market and place of worship. Table 6.4B is a frequency table showing the various sources from which participants first heard about the NHIS.

Table 6.4B: Source of knowledge of the NHIS

Description	Percent
At the hospital	25.6
Friends/family	30.6
Media	23.9
Workplace	2.8
Place of worship	2.2
Market	1.7
Community Sensitization	13.3
Total	100.0

Based on Health Insurance Survey 2013

Although participants enrolled in the scheme for various reasons the majority (59.3%) of them did so to get financial protection against illness. This outcome was expected in the sense that financial protection against the costs of treatment happens to be the main purpose of health insurance. Yet this outcome is also consistent with earlier studies (Blanchet et al., 2012, Singh et al., 2015a, Frempong et al., 2009, Schieber et al., 2012b, Witter and Garshong, 2009c) in which it is argued that the NHIS has caused an increase in the number of people accessing care when they fall ill, in contrast to out-of-pocket payment which led to a drastic reduction in the number of clients seeking allopathic medical care when they fell ill (Frempong et al., 2009, Chankova et al., 2010, Ansah et al., 2009, Apoya and Marriott, 2011).

Table 6.4C Reasons for enrolling in the NHIS

Reasons	Percent
Financial protection against illness	59.3
Cheaper than OOP	20.3
Peer pressure	1.7
The Church asked us to join	10.0
The Village Chief asked us to join	8.7
Total	100

Based on Health Insurance Survey 2013

Table 6.4D summarises the reasons for dropping out of the scheme. Expensive premiums was mentioned as the main reason participants dropped out of the scheme (51.1%). Other reasons mentioned included bad timing of collection of premiums (20.6%), poor quality of care (12.2%), long distance to NHIS office (6%) and health facilities percent (6.9%). This finding agrees with previous

research which found the scheme's dropout rate to be high among the poor (Jehu-Appiah et al., 2011a, Atinga et al., 2015), and even higher in the rural areas (Durairaj et al., 2010b, Gobah and Liang, 2011a).

Table 6.4D: Reasons for dropping out of the NHIS

Reasons	Percentage
Expensive renewal fees	51.1
Benefits package not attractive	1.1
Quality of care is bad	12.2
The NHIS office is too far away	6.1
Health facility is too far away	6.7
No transport to health facility	2.2
Timing of collection of premiums not convenient	20.6
Total	100

Based on Health Insurance Survey 2013

Again, affordability dominates the reasons why participants were not enrolled in the scheme as seen in table 6.4E. Participants also cited unaffordability of premiums (76.6%), preference for traditional medicine (9.1%), and inconvenient timing of premium payment (4.1%) as reasons for not joining the scheme (table 6.4E). There was no strong indication however of users' dissatisfaction with service provision but a detail analysis of this assumption is addressed later in the chapter.

Table 6.4E Reasons for never enrolling

Reasons	Percent
Cannot afford premium	76.6
Registration point too far	2.6
I don't like the benefits package	1.1

Why pay when am not sick	.6
I use traditional medicine only	9.1
Inconvenient timing of premium payment	4.1
No health facility in my area	3.3
Poor quality of care	2.6

Based on Health Insurance Survey 2013

Beyond these simplified reasons for enrolling however, is a set of more complex dimensions of access to health care services that can influence enrolment decisions. These dimensions of access include geographic accessibility, availability, affordability and accessibility of services (Penchansky and Thomas, 1981, Peters et al., 2008, McIntyre et al., 2009, Aday and Andersen, 1974b, Aday and Andersen, 1981). The following section of the chapter presents quantitative data analysis in line with these dimensions for assessing access to health care services. The results are based on analysis of quantitative survey data with purposively selected participants, including currently enrolled, previously enrolled and never enrolled. The rationale is to identify important factors that govern households' enrolment decisions. The analyses facilitate a critical discussion of health care accessibility barriers and how these vary between urban and rural areas in the Jirapa district.

6.5 Accessibility of the NHIS services

Given the urban oriented nature of Ghana's health system it is obvious that rural residents face tougher challenges when it comes to accessing health care services generally. Yet the NHIS promises to be pro-poor, meaning that it aims to give priority attention to the poor (who are mostly rural). The objective of this section is to establish whether there are any differences in the ways urban and rural residents perceive access to the NHIS. The results that follow show

interesting urban-rural differences in participants' perceptions of access in relation to all four dimensions of access; geographic, availability, affordability, and acceptability of services. Using SPSS analysis, a cross tabulation of independent and dependent variables produced chi-square (X^2) statistic to determine significant relationships between categorical variables.

6.5.1 Geographic accessibility of the NHIS office

This segment of the analysis focuses on the convenience of access to the NHIS District Office in relation to the physical distance from the location of the user to the scheme's office in Jirapa town. In this study the distance to the point of service (NHIS office and facilities) is defined as far if it is more than 5 kilometres, and described as near or easily accessible if it less than 5 kilometres from the location of the user. Firstly, a cross tabulation of enrolment status and accessibility of the NHIS office seen in table 6.5.1A shows that the majority of participants have positive perceptions on the location of the NHIS office. The majority of participants (53.3%) who have never enrolled in the scheme perceive distance to be a barrier. There was a significant relationship between enrolment status and location of NHIS district office ($X^2 = 0.019$). This implies that long travel distance to the NHIS office was likely to influence the enrolment decisions of households. A surprising part of the analysis is that 55 percent of the currently enrolled, and as much as 71.7 percent of the previously enrolled perceive the location of the NHIS office to be convenient. In the normal order of things it would be expected that the opposite to be true, where dropout could be associated with long distance to health facilities.

Table 6.5.1A: Membership of the NHIS and accessibility of the NHIS office

Are you a member of the NHIS?		Is the district NHIS office location convenient for you and your household?		
		Yes	No	Total
Currently enrolled	Count	33	27	60
	%	55.0	45.0	100
Previously enrolled	Count	43	17	60
	%	71.7	28.3	100
Never enrolled	Count	28	32	60
	%	46.7	53.3	100
Total	Count	104	76	180
	%	57.8	42.2	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.019

A cross tabulation of the location of participants and the location of the NHIS office also show variation in perceptions of distance to the NHIS office. The results in table 6.5.1B show that 90.5 per cent of urban participant find the location of the scheme office to be convenient. A significant relationship was observed between location of households and access to the NHIS office ($X^2=0.001$). It implies that households living near the NHIS office were more likely to access NHIS services than those less close to NHIS services. In other words, distance to the NHIS office was not likely to deter urban residents from enrolling in the NHIS as it would deter the 46.5 percent rural residents who

perceive travel distance to Jirapa to be an inconvenience. This was expected because the NHIS office is located in Jirapa town (less than 30 minutes' walk for many households), but it has costs implications for rural residents who may have to pay extra money in transport fares to access services from the NHIS office.

Table 6.5.1B: Area of residence and accessibility of the NHIS office – Cross tabulation

Characteristics of the area where the house is located		Is the district scheme office location convenient for you and your household?		
		Yes	No	Total
Urban	Count	19	2	21
	%	90.5	9.5	100
Rural	Count	85	74	159
	%	53.5	46.5	100
Total	Count	104	76	180
	%	57.8	42.2	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.001

Furthermore, while as much as 53.5 per cent of rural participants find it convenient accessing the district office of the NHIS, it is likely that these participants reside in communities that have NHIS agents; a suggestion that they are able to enrol or renew their membership in their community through an NHIS agent without travelling to the district office in Jirapa. For this group of people distance may not be a barrier to access. However, the 46.5 percent who may not have NHIS agents would have no option other than to travel to Jirapa to get their membership sorted out. For them long travel distance coupled with a bad road network and poor transport services may still be a barrier.

6.5.2 Affordability - Costs of NHIS premiums

Like geographic accessibility, research on affordability of health care services are of the view that high cost of flat rate premiums excludes the poor from the NHIS and stops them from using facilities effectively (Akazili et al., 2014, Atinga et al., 2015, Macha et al., 2012, Schieber et al., 2012b, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Witter and Garshong, 2009c, Akazili, 2010). In this study, affordability of premiums was assessed in relation to users' ability to pay premiums and renew their membership on time. The ensuing analyses show significant relationships between affordability of premiums and livelihoods of participants. The results in table 6.5.2A show that the majority of survey participants (71.7%) perceive the current premiums to be unaffordable, while only 28.3 percent of them find it affordable. This outcome is consistent with the analysis in tables 6.4D and 6.4E in which dropping and never enrolling in the scheme respectively are associated with high costs of premiums. This result did not come as a surprise given recent statistics which show that the majority (7 out of 10 people are considered poor) of the population of the Upper West region of Ghana is poor (GSS, 2015).

Table 6.5.2A: Survey participants' perception of costs of premiums

Description	Frequency	Percent
Yes	51	28.3
No	129	71.7
Total	180	100

Based on Health Insurance Survey 2013

Further analysis seen in table 6.5.2B provides a clearer picture of how various livelihood groups perceive the costs of health insurance premiums. Farmers constituted 70 percent of the total number of participants and 76.2 percent of

them perceived the premiums to be unaffordable. Some 60 percent of formal sector employees also perceived the premiums to be high and unaffordable to the poor. On the contrary however, although expected, 56 percent of private traders found the premiums to be affordable. Unlike farmers whose flow of incomes is irregular and seasonal, private traders who constitute 25 percent of the sample tend to have a regular flow of income, and this may explain why majority of them perceive the premiums to be affordable. The cross tabulation gives a Pearson chi-square of 0.023 ($X^2=0.023$) that is statistically significant. This means that there is a relationship between livelihood of respondent and affordability of NHIS premium: households with regular incomes were more likely to be able to pay NHIS premiums and those with irregular income were less likely to afford NHIS premium.

Table 6.5.2B: Livelihoods of participant and perceptions of the costs of premiums

Livelihood of respondent		Is the NHIS premium affordable?		
		Yes	No	Total
Farming	Count	30	96	126
	%	23.8	76.2	100
Formal employment	Count	2	3	5
	%	40	60	100
Private trades	Count	14	11	25
	%	56	44	100
Other livelihoods	Count	5	19	24
	%	20.8	79.2	100
Total	Count	51	129	180
	%	28.3	71.7	100

Based on Health Insurance Survey 2013. Pearson Chi-square (0.019)

A cross tabulation of enrolment status with affordability also showed a relationship between the costs of premiums and enrolment in the NHIS. The analysis of table 6.5.2C shows that 60 percent of current members of the scheme perceive the premiums to be affordable. However, 78.3 percent and 96.7 percent of the previously enrolled and the never enrolled respectively perceive the premiums to be unaffordable. It is worth highlighting that while premiums are generally unaffordable to all three groups of participants it was the never enrolled (96.7%) who seemed to find it a lot more difficult paying for premiums compared to the previously enrolled (78.3%) and the enrolled (40%).

Table 6.5.2C: Membership of the NHIS and perceptions of affordability of premiums

Are you a member of the national health insurance scheme?		Is the NHIS premium affordable?		
		Yes	No	Total
Currently enrolled	Count	36	24	60
	%	60	40	100
Previously enrolled	Count	13	47	60
	%	21.7	78.3	100
Never enrolled	Count	2	58	60
	%	3.3	96.7	100
Total	Count	51	129	180
	%	28.3	71.7	100

Based on Health Insurance Survey 2013. Chi-square (0.000)

The result is statistically significant (Pearson chi-square 0.000); implying that there is a relationship between households' enrolment status and costs of premiums: the currently enrolled were more likely to be able to pay premiums and the never enrolled and previously enrolled were less likely to be able to

afford premiums. This corroborates the results in tables 6.4D and 6.4E in which unaffordability of premiums appeared to be the dominant reason dropping out and never enrolling respectively. It also consistent with the findings of previous research (Akazili et al., 2014, Atinga et al., 2015, Macha et al., 2012, Schieber et al., 2012b, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Witter and Garshong, 2009c), which suggest that some users of healthcare services were failing to enrol or remain in the scheme because they cannot pay the premiums.

6.5.3 Availability of services

Availability of services was assessed based on participants' perceptions of the effectiveness of the different types of services provided by the NHIS. Thus, perceptions of the availability of services included in the NHIS benefits package are an important area to explore in the sense that the benefits package, and the extent to which providers adhere to the provision of these benefits is important in attracting people to join the scheme. The NHIS benefit package comprises an estimated 95 percent of the burden of diseases in Ghana (Schieber et al., 2012b, Witter and Garshong, 2009c). These include outpatient consultations, essential drugs, inpatient care and shared accommodation, maternity care (normal and caesarean delivery), eye care, dental care, and emergency care etc. Certain public health services historically provided for free, such as family planning and immunizations, are covered under the NHIS (Witter and Garshong, 2009c). Yet the provision of these services may differ from one health facility or location to another depending on availability of resources (personnel, drugs etc.). In places where the benefits package is perceived to be attractive, the likelihood of people enrolling and remaining in scheme may be

high. However, where the benefits package is perceived to be limited, low enrolment and dropout is likely to be a common feature (Schieber et al., 2012b). The survey results show in table 6.5.3A that on average 91.1 percent of the users were satisfied with the benefit package, while only 7.8 percent of participants were dissatisfied with it.

Table: 6.5.3A: Satisfaction with the NHIS benefit package

Description	Frequency	Percent	Valid percentage	Cumulative percent
Yes	164	91.1	92.1	92.1
No	14	7.8	7.9	100.0
Total	178	98.9	100.0	

Based on Health Insurance Survey 2013

An important result to highlight however, is that in spite of the fact that majority of participants were satisfied with the benefits package, table 6.1.5.3B shows that in terms of location it was the rural residents (93.6%) who seemed more satisfied with the benefits package than their urban counterparts (81%). This outcome was statistically significant ($X^2=0.043$); suggesting a relationship between the location of households and satisfaction with the NHIS benefit package. However, rural residents were more satisfied with the benefits package and thus more likely to be influenced by it than their urban counterparts. Again this variation in perceptions among urban and rural participants necessitated the use of in-depth interviews to probe further for clarity.

Table 6.5.3B Area of residence and satisfaction with the NHIS benefit package - Cross tabulation

Characteristics of the area where the house is located		Are you satisfied with the NHIS benefit package		
		Yes	No	Total
Urban	Count	17	4	21
	%	81.0	19	100
Rural	Count	147	10	157
	%	93.6	6.4	100
Total	Count	164	14	178
	%	92.	7.9	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.043

In summary, the majority of participants are satisfied with the NHIS benefits package; such positive perceptions suggest that the benefits package is likely to attract users to enrol in the scheme. But it also suggests that most users who are not members of the scheme did so for other reasons rather than the unattractiveness of the benefits package. This assertion is consistent with the analysis in table 6.4D in which only 1.1 percent of participants dropped out of the scheme due dissatisfaction with the benefits package.

6.5.4 Acceptability of NHIS services

Acceptability of health services remains a crucial factor upon which access to health care services is measured. An important indicator of acceptability of care is the quality of service (Carrin, 2003, Penchansky and Thomas, 1981, Peters et al., 2008, McIntyre et al., 2009, Dillip et al., 2012, Aday and Andersen, 1974b). Thus, in the context of the NHIS, the quality of services rendered by a health insurance scheme would be a significant determining factor of enrolment. Where the quality of care is deemed to be poor, users may not be willing to enrol (Carrin, 2003, Jütting, 2004). This may be common in pluralistic medical systems where users have easy access to alternative health care providers such as traditional practitioners, and other informally trained and untrained providers. Yet another reason to explore the acceptability of NHIS services is that Health Insurance is a Western concept (designed and implemented along the lines of Western technologized medical practices). It is therefore important to analyse whether the implementation of the NHIS is in sync with local notion of social solidarity. The survey questions sought to elicit from participants whether services rendered by the NHIS such as registration of members, the mode and timing for the collection of premiums as well as issuance of membership cards are user-friendly and acceptable.

6.5.4.1 Friendliness of registration process

Table 6.5.4.1 gives mixed perceptions of the registration process and shows that whereas the currently enrolled (71.7%) and the previously enrolled (75.0%) perceive the process to be friendly, 55.9 percent of participants who have never enrolled in the scheme perceive the process to be unfriendly. This outcome is statistically significant ($X^2 = 0.001$); which means that there is a relationship

between perceptions of the registration process and enrolment in the NHIS. Participants who are currently and previously enrolled were more likely to be satisfied with the registration process, while those never enrolled were less likely to be satisfied with the mode of collecting premiums. Thus individuals or households may be deterred from enrolling in the scheme if they perceive the process to be unfriendly.

Table 6.5.4.1: Membership of the NHIS and perceptions of friendliness of the registration process

Are you a member of the national health insurance scheme?		Is the registration process friendly?		
		Yes	No	Total
Currently enrolled	Count	43	17	60
	%	71.7	28.3	100
Previously enrolled	Count	45	15	60
	%	75	25	100
Never enrolled	Count	26	33	59
	%	44.1	55.9	100
Total	Count	114	65	179
	%	63.7	36.3	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.001

6.5.4.2 Convenience of payment of premiums

Similar to the registration process, the process of paying annual premiums (one-off payment) also produced mixed perceptions. Table 6.5.4.2 shows that whereas the currently enrolled (85%) and the previously enrolled (63.3%) perceive the process to be convenient, 71.2 percent of participants who have

never enrolled in the scheme perceive the process to be inconvenient. This was also statistically significant (Chi-square = 0.000), meaning that there is a relationship between the enrolment status and the convenience of paying of premiums. Participants who are currently and previously enrolled were more likely to be satisfied with the mode of collection of premiums, whereas the never enrolled were less likely to be satisfied with the mode of collecting premiums. Studies elsewhere have found rigid payment methods to discourage enrolment in health insurance schemes; De Allegri et al. (2006a) for example, found rigid payment modalities to be a more serious barrier than the cost of premiums for enrolling in community-based health insurance in rural West Africa. Similarly, Chankova et al. (2008) suggests that willingness to pay could be enhanced by simplifying premium collection methods and making premiums payable in higher frequencies thereby promoting enrolment by low-income households.

Table 6.5.4.2 Membership of the NHIS and perceptions of convenience of the process of paying premiums - Cross tabulation

Are you a member of the national health insurance scheme?		Is the process of premium payment convenient?		
		Yes	No	Total
Currently enrolled	Count	51	9	60
	%	84	15	100
Previously enrolled	Count	38	22	60
	%	63.3	36.7	100
Never enrolled	Count	17	42	59
	%	28.8	71.2	100
Total	Count	106	73	179
	%	59.2	40.8	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.000

6.5.4.3 Convenience of timing of collection premiums

Consistent with the perceived payment rigidities, participants in the informal sector also perceived the timing for collection of premiums to be unfavourable. In table 6.5.4.3A the results show that 66.1 percent of the currently enrolled, 83.3 percent of previously enrolled, and 84.5 percent of the never enrolled participants perceive the timing of collecting contributions to be inconvenient. Contrary to expectations, majority of the currently enrolled also perceived the timing to be unfavourable.

Table 6.5.4.3A: NHIS membership and perceptions of the convenient of timing for collection of premiums

Are you a member of the national health insurance scheme?		Is the timing for collection of premium convenient?		
		Yes	No	Total
Currently enrolled	Count	20	39	59
	%	33.9	66.1	100
Previously enrolled	Count	10	50	60
	%	16.7	83.3	100
Never enrolled	Count	9	49	58
	%	15.5	84.5	100
Total	Count	39	138	177
	%	22	78	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.026

In terms of location, the results in table 6.5.4.3B indicate also that majority of participants were not satisfied with the timing for collection of premiums. This however, was higher among rural residents (80.9%) compared to their urban counterparts (55%). It also shows that there is a relationship between locality

and perceptions of the convenient timing of collection of premiums. This finding is consistent with GLSS' round of surveys which conclude that seasonality of crop farming accounts for the high rate of poverty in among crop farmers in rural areas (GSS, 2007, GSS, 2015). As mentioned above, the seasonality of the incomes of farmers means that collection of premiums needs to be scheduled to coincide with a period when farmers are harvesting and selling farm produce. This would make it possible for many informal sector workers to pay the premiums on time and be entitled to free medical care.

Table 6.5.4.3B: Area of residence and perceptions of the convenient timing for the collection of premiums

characteristics of the area where the house is located		Is the timing for the collection of premiums convenient to you?		
		Yes	No	Total
Urban	Count	9	11	20
	%	45	55	100
Rural	Count	30	127	157
	%	19.1	80.9	100
Total	Count	39	138	177
	%	22	78	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.009

6.5.4.4 Issuance of membership cards

Aside from the rigid payment system, delay in issuing membership cards is another service issue that is unpopular with the majority of participants. For security purposes the NHIA produces membership cards from one central point, but this slows down the production process as it takes at least three months to process and issue membership cards to new subscribers. This means that after

a subscriber has paid their premium they still cannot access health care services free of charge until after three months when their cards are ready. Jehu-Appiah et al. (2011a) argues that the NHIS poor administrative arrangements which result in delays in identity card production is a potential barrier to access and an inconvenience to subscribers. Table 6.5.4.4 cross tabulates enrolment status with perceptions around the issuance of membership cards to provide a picture of the relationship between these variables. The results show that, in general, the majority of the participants perceive the delay in processing and issuance of membership cards as a source of inconvenience. This perception however varied on the basis of enrolment status; enrolled (60%), previously enrolled (71.7%), and never enrolled (86.2%). Although it was expected that many would be unsatisfied to wait so long to receive their ID cards, the analysis shows that the previously enrolled (71.7%), and never enrolled (86.2%) recorded higher dissatisfactory scores than the enrolled (60%). A Pearson chi-square of 0.006 shows a relationship between enrolment status and perceptions of speedy timely issuance of membership cards, thus reinforcing the notion that perhaps a speedy production and distribution of personal identification cards might have a positive influence on households' decisions about joining the NHIS.

Table 6.5.4.4: Membership of the NHIS and perceptions of the timely issuance of membership cards

Are you a member of the national health insurance scheme?		Are membership cards issued on time?		
		Yes	No	Total
Currently enrolled	Count	24	36	60
	%	40	60	100
Previously enrolled	Count	17	43	60

	%	28.3	71.7	100
Never enrolled	Count	8	50	58
	%	13.8	86.2	100
Total	Count	49	129	178
	%	27.5	72.5	100

Based on Health Insurance Survey 2013. Pearson chi-square = 0.006

6.6 Summary of the quantitative results on accessibility of the NHIS

In summary, this first section of the chapter analysed the factors that influence enrolment in the NHIS. The results indicate that the location of the district NHIS office was mostly more convenient for urban residents than for rural residents. The office is located in Jirapa town, which is a walking distance to many households anytime they wanted to access it. However, the situation is not the same for residents of some rural communities in the district who have to travel 5 kilometres or more to Jirapa to register or renew their membership. Long travel distance to the NHIS could negatively impact on the enrolment in the NHIS as users may find it convenient to turn to alternative providers such as Traditional Health Practitioners who are nearer and easily accessible.

In terms of affordability of services, most participants (71.7%) perceived the premiums to be unaffordable. The figure was higher (76.2%) for rural participants who constitute 88.3 percent of the survey sample. Consistent with regression analysis, this variation may be due to higher levels of poverty in rural areas resulting from seasonal subsistence crop farming. Reforms may therefore be needed to ensure progressive and equitable financing in aid of the poor informal sector households. The current flat rate premiums coupled with a

stringent exemption policy appear to exclude low income groups from participating actively in the scheme. This point is buttressed by evidence of adverse selection uncovered through interviews with users, providers and officials of the NHIS.

With respect to the availability of NHIS services, aside from communities that lacked NHIS agents, participants were generally satisfied with the benefits package as well as the performance of NHIS staff and agents. However, rural residents (93.6%) seemed more satisfied with the benefits package than their urban counterparts (81%). This difference in satisfaction with benefits package perhaps helps in explaining the existing disparities in dropout rates between urban and rural areas.

The analyses also show that whereas services relating to the friendliness of the registration process and the mode of paying premiums were mostly satisfactory to the currently enrolled, the production and distribution of NHIS membership identity cards and the timing for collection of contributions were mostly perceived to be unsatisfactory by participants irrespective of area of residence. Lack of satisfaction with the quality of services rendered by the scheme could negatively affect enrolment. Some evidence of this is seen in table 6.4D as well as in previous research (Atinga et al., 2015, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Barimah and Mensah, 2013, Carrin, 2003, Owusu et al., 2009).

6.7 Qualitative results that relate to the NHIS

In terms of qualitative data, semi-structured interviews were conducted with users of health services, management of the scheme, a doctors, nurses and Traditional Health Practitioners (TMP), to gain first hand in-depth information on

the dimensions and determinants of access to health insurance and health services in the district. Appendix 9.2 shows the participant distribution and data generation method. The interviews lasted between 45 minutes to 2:30 hours and the types of questions asked varied from one category of participants to another.

This section of the chapter presents a synthesis of qualitative results that relate to the NHIS. Similar to the quantitative results section, the results of the section are presented in line with the four thematic dimensions of access to health services; geographic accessibility, availability, affordability and acceptability of services.

6.7.1 Geographic accessibility of services: Is distance a constraining factor?

The objective is to explore for more insight on the relationship between distance to the NHIS office and enrolment in the scheme. The quantitative results have hinted that majority of participants perceived the location of the NHIS office to be convenient. However, a cross tabulation of area of residence of participants and the location of the NHIS office showed a significant difference in perceptions in this of distance to the NHIS office; table 6.5.1B showed that 90.5 percent of urban participant found the location of the scheme office to be convenient compared to 54.5 percent of rural residents. Although this finding is consistent with earlier observations made in the conceptual literature that rural public are most disadvantaged when it comes to nearness to health services (Aday and Andersen, 1974b, Aday and Andersen, 1981, McIntyre et al., 2009, Penchansky and Thomas, 1981, Peters et al., 2008, Twumasi, 1975, Twumasi, 1979), there is good justification to investigate this further because the position

of 'Community Agents' was introduced to reduce the effect of distance to the NHIS district offices. Community Agents are responsible for completing registration and renewal forms as well as distributing identity cards to members. The important question is why a significant difference in perceptions of distance to the NHIS office among urban and rural residents? The ensuing paragraphs present in-depth findings on geographic accessibility of the NHIS elicited from users, NHIS agents and managers.

The question of whether the Jirapa district NHIS office is accessible to residents and whether this impedes enrolment in the scheme was thrown to users, NHIS managers and agents. The NHIS district office serves as the main point of registration, renewal of membership and collection identity cards.

The analysis of interview data revealed a general consensus among participants that long distance to the NHIS office in Jirapa was a challenge specific to rural areas. As indicated earlier Community Agents are responsible for registering, renewing and distribution membership cards in communities that far away from the district office. According to an official of the district NHIS however, some rural residents are compelled to travel a long distance to the district office of the NHIS to register or renew their membership because of the absence of a Community Agent in their villages. According to official statistics, enrolment has plummeted in rural communities that no longer have NHIS agents. He said:

"A reduction in active membership in communities that no longer have our agents working there is an indication that some people are unable to travel to the district office to register or renew their membership. We are taking measures to address this problem as soon as possible."

Three of the nine rural residents interviewed for this study travelled to Jirapa to get enrolled because they did not have NHIS agents in their communities. In their view, long travel distance coupled with a bad road network and poor transport services remain serious barriers of access to health care for rural people. One of them only managed to make it to Jirapa after three failed attempts to get find transport. He said:

“For three consecutive days I spent at least five and half hours each day at the junction over there waiting to catch a vehicle to Jirapa to get enrolled. Eventually, I had to buy a gallon of petrol to enable my brother take me with his motorbike to NHIS office in Jirapa. Some people here give up trying after several attempts in vain.”

Thus, without community agents some rural people are not able to travel so far to join or renew their membership.

The story is different for urban participants; analysis of interview data revealed that urban participants, irrespective of enrolment status perceived the location of the NHIS office to be accessible. Interviews with urban participants (including enrolled, previously enrolled and never enrolled) suggested that they were satisfied with the location of the NHIS office. They concurred that the NHIS office is located within a convenient walking distance from their places of residence. These findings are consistent with the survey results which showed that 90.5 per cent of urban participant find the location of the scheme office to be convenient. This outcome was expected because the NHIS office is located in Jirapa town, which is less than 30 minutes' walk for many households. These findings suggest that whereas distance to the NHIS may not deter urban residents from enrolling in the NHIS, it may on the contrary have a negative influence on enrolment among rural residents.

The disperse settlement pattern of communities in the district poses a challenge to the day to day operations of the scheme. An official of the scheme revealed that NHIS staffs and community agents, constrained by limited transport services are often unable to meet their monthly enrolment targets because of the long distance and the poor state of the roads. This, according to him is depriving some rural residents of the opportunity to enrol and access health care services. On measures to address the distance situation, the officer was of the view that providing NHIS Community Agents with the incentives such as means of transport and salaries might help improve outreach services. Other innovative registration exercises have been introduced aimed at increasing enrolment especially for those in faraway rural places. These include, mass registration, request-based registration, special registration and free maternal health care, and these have been instrumental in increasing enrolment in the past two years. The next section of the analyses the affordability of premiums.

6.7.2 Affordability of premiums

Like geographic accessibility, the literature on affordability of health care services was explored in chapter three of this work, where analysts attributed the exclusion of the poor from the NHIS to high cost of flat rate premiums (Macha et al., 2012, Atinga et al., 2015, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011b, Jehu-Appiah et al., 2011c, Mills et al., 2012b). In this study, affordability of premiums is assessed in relation to users' ability to pay premiums and renew their membership on time. Semi-structured interviews with users, providers and managers of the NHIS provided more insight on the implications of flat rate premiums and stringent exemption criteria on enrolment in the NHIS.

6.3.5.1 Costs of premiums

The analysis of costs of premiums produced mixed results. Whereas users, providers, and NHIS agents concurred that the current premiums to be unaffordable to the poor, officials of the scheme thought otherwise. The flat rate premium of GH¢ 12.00 (about £2.20) was perceived to be affordable to the poor partly because of the large households sizes that is typical of rural areas in Ghana (GSS, 2014, GSS, 2015). The average household size in the district is 6.3 persons per household (GSS, 2014). This takes the average household spending on health insurance premiums per annum to GH¢75.60 (about £14.00). This figure might seem affordable to the ordinary Ghanaian, but as reported in the sixth round of the Ghana Living Standards Survey (GLSS6) and the 2010 Population and Housing Census (2010 PHC), the Upper West Region has the highest poverty incidence (70.7%) in the country (GSS, 2015). It means that 7 out every 10 people in the region, and for that matter the Jirapa district are considered to be poor. An earlier GLSS 5 report had highlighted that the level of poverty is found to be highest among food crop farmers which is the main economic activity of the study area (GSS, 2007).

These findings corroborate the survey results; the results in table 6.5.2A showed that 71.7 percent of participants perceived the premiums to be unaffordable to poor households. And whereas table 6.4D shows that 51.1 percent of previously enrolled participants dropped out of the scheme because of expensive renewal fees, table 6.4E shows that 76.6 percent of participants who have never enrolled in the scheme perceive the premiums to be too expensive. Additionally, the results of the logistic regression (seen in table 6.3) also suggests that being in a rural area compared to respondents in the urban area had a significant and negative influence on wealth. More interestingly,

these findings confirm the six Ghana Living Standard (GLSS6) round of surveys which concluded that poverty in Ghana is disproportionately a rural phenomenon (GSS, 2007, GSS, 2015). It is, therefore, not surprising that participants of this study, most of who reside in rural areas perceive the premiums to be unaffordable.

It has to be mentioned however, perceptions of the high cost premiums was not just limited to rural participants; some urban participants concurred that although the Gh¢12.00 (about £2.20) for new registrants and Gh¢10.00 (about £2.00) renewal fees may be affordable to many formal sector workers, it seemed expensive to the poor farmer in a village whose farm produce is not enough to feed the household let alone sell some of it to buy premiums:

“The majority of these people cannot afford to put food on the table. The farm land has lost its fertility and the rains are very erratic too. So they do not have any surplus to sell to pay for health insurance,” an urban participant observed.

However, officials of the scheme were of the view that premiums could not have been lower. In a response contrary to the views of users, providers and agents, a district official said the premiums were very affordable; *“We charge GH¢12.00 to new registrants, GH¢10.00 for renewal, GH¢4.00 registration fee for children and GH¢2.00 for renewal”*. The premiums charged in this district are the lowest in the country, but it is also cheap compared to what users pay out of pocket for treatment without health insurance. According to him the scheme has in place exemptions for indigents who genuinely cannot afford to pay the premiums.

6.3.5.2 Exemptions

These exemptions schemes are created to cover vulnerable groups such as children less than 5 years of age, pregnant women, seniors and indigents (Borghi, 2011, Donaldson et al., 2005, McIntyre et al., 2005, Witter, 2009, Derbile and van der Geest, 2013). In Ghana, the NHIS exempts vulnerable groups such as pregnant women, children under 18 years of age, seniors above 70 years of age, SSNIT pensioners and indigents from paying premiums. Whereas exemption schemes targeting specific vulnerable groups (such as pregnant women, children under 5 years of age, seniors) are easy to implement, exemption schemes that require means testing to are less effective due to the difficulty of appropriately assessing eligibility (Witter, 2009, McIntyre et al., 2005). Consistent with this argument the stringent eligibility criteria for exemptions under Ghana's NHIS appears to be excluding poor people who cannot afford to pay the flat-rate contributions (Schieber et al., 2012b, Apoya and Marriott, 2011, Averill and Marriott, 2013a, Witter, 2008, Witter and Garshong, 2009c). It became apparent through interviews for this research that some indigents have been left of the scheme although they are supposed to be exempt from paying premiums. A previous beneficiary said;

“My church Pastor used to pay the premiums for me but after the church folded up in this village we lost contact and I have been without insurance cover for the past three years.”

The poor man's story was validated by an account by an official of the NHIS who conceded that the criteria for identifying indigents was too stringent and thus excludes people who should be covered. Community Agents admitted that they face a difficult challenge enrolling indigents because the scheme's

definition of indigent is so restrictive and relies on means testing criteria that does not reflect the circumstance of the poor in typical Ghanaian rural communities. This flags up the need to reform certain design elements of the scheme that are impracticable. An official however indicated that some measures were under consideration to revise the criteria of selection to reflect local communities' description of the indigent. This would make the process more pro poor and increase the likelihood of extending coverage to as many indigents as possible. A detail discussion of exemption and exclusion of indigents is provided in chapter eight of this thesis.

6.3.5.3 Moral Hazards

A regional official of the scheme reiterated the schemes' position on premiums. He said the current premiums are reasonably affordable. He dismissed the option of making the membership free of charge to all users and explained that the contributions are used for administrative overhead costs and for paying the allowances of NHIS Community Agents. The officials explained further that, although contributions constitute only 5 percent of the total reimbursements to providers plus administrative overhead costs to the NHIS, access to care cannot be made free. Free access to health care according to these officials opens the system to moral hazards, which poses a threat to the schemes fragile financial position.

Health providers are also worried about the threat of moral hazard should health care be made free at the point of use. A public health nurse conceded that although the premiums appear to be expensive to struggling households, free health would result in abuse whereby people would be visiting health facilities even when they not really sick. The likelihood that users will scale back on

preventive efforts in response to insurance coverage, or an increased demand for health care once enrolled are high. This might result in unnecessary pressure being exerted on the already overstretched health resources. Some midwives have attributed the increased demand for maternal care to free maternal care provided by the NHIS. Although a positive development, midwives are unhappy with high increase in pregnancy cases since the scheme commenced operation. However, increased demand for maternal as a moral hazard issue is a subject of debate. From the point of view of this research the increase in demand for maternal care might be the result of fact that pregnant women who could not manage to pay out of pocket (cash and carry system) and therefore did not visit public health facilities are able to access services under the current NHIS. Traditional Birth Attendance interviewed for this research confirmed that they all referring pregnant women to health facilities for 'proper' care. Their role has changed from being traditional midwives to being 'community ambassadors' responsible for identifying pregnant women on time and encouraging them to visit health facilities regularly for medical attention. This view is consistent with statistics obtained from the Jirapa district health reports (see table 5.2.9) which shows that a reduction in unskilled deliveries from 39 percent in 2003 to 4.2 percent in 2012.

The challenge facing the health system in this era of NHIS appears to be a limited supply of health resources to meet the increase in demand for health services. The overview of Ghana health system described in chapter five illuminates not only the shortage of health personnel, but also highlighted is the fact that their distribution is skewed in favour of urban or well-endowed parts of the country. A solution to this challenge may increase in the supply and equitable distribution health personnel in the country.

6.3.5.4 Adverse selection

All the nine rural interview participants considered high costs of premiums as a major barrier preventing many poor households from joining or dropping out of the scheme. These participants were of the view that given the large sizes of many rural households, coupled with the seasonality of their income the said premiums were just beyond their reach. In the absence of money to pay premiums of every member of the household, some families resort to adverse selection. One household head said;

“I just managed to raise enough money for my wife and two of my younger children. My three older sons and I have never enrolled in the scheme because it is too much money and we can’t afford it.”

This was an interesting response as it seemed that adverse selection was a preferred option to households who could not afford the premiums for every member. The decision of this father to enrol his wife and two younger children who are perceived to have higher risks of illness flags up the extent of adverse selection in the NHIS. This is likely to be a common trend among the poor where by those who register with the scheme are likely to be people perceived to be more vulnerable to illness.

According to officials and agents of the NHIS, there is clear evidence of adverse selection in the NHIS. In their estimation, NHIS agents thought that about 90 percent of those registering with the scheme are in the exempt group, who would include pregnant women, seniors aging 70 years, and indigents. More than half of the remaining 10% of registered members are unable to renew their membership on time. The rest renew their membership only when they are sick and need treatment at the facility. An official of the scheme said:

“when you see somebody here (NHIS office) very early in the morning waiting to renew a card for themselves or for a family member, then you know that they are sick and need insurance cover to go the hospital. And this happens all the time”.

Yet the agents blame adverse selection on the high cost of premiums. They agreed that in some poor households husbands would normally abstain or dropout of the scheme to allow their wives and children to enrol on the grounds that women and children are more vulnerable. An agent said:

“It (premium) is not affordable at all. Looking at our condition here many people cannot afford it. Initially, it was Gh¢7.20 (about £1.50) per person (adult) and children were not paying once their parents were registered. Now it is not the case, the fee is gone up and children are required to pay. Imagine someone has ten children and you are paying Gh¢5.00 per each child, definitely many households cannot afford it. That is why you find in some families only children and women are registered while the men are not. It is because they cannot pay for the whole family.”

The differing perceptions of affordability throw up a number of important issues for discussion. An attempt by the scheme to pilot a flexible payment system in Douri is a strong indication that the NHIS has recognised that poor households are unable to raise the premiums especially when household size is large. The exclusion of indigents and prevailing adverse selection are indicative of the need for reforms to make the scheme accessible to the poor.

6.7.3 Availability of NHIS services

Similar to the quantitative results, availability of services was assessed based on participants' perceptions of the effectiveness of the different types of services that the NHIS provide in the district. The results are based on the attractiveness of the benefits package and the scheme's capacity to extend

enrolment services to rural residents, as logistics remain constraining feature of most public service systems in the country. The findings were obtained from semi-structured interviews with users, health personnel and NHIS officials.

6.7.3.1 The benefits package

Consistent with the survey results, all the nine rural residents interviewed agreed with the view that the current NHIS benefit package is attractive. Interestingly, even those who have never enrolled in the scheme have a positive perception of the benefit package. Schieber et al. (2012b) have argued that an attractive benefits package is a prerequisite for successfully implementing a health insurance scheme. Although the NHIS has an attractive benefits which covers 95 percent of the burden of disease (BOD) (NHIA, 2013c, Witter and Garshong, 2009c, Schieber et al., 2012b), there are questions about the quality and availability of these services to users. In a recent study, Atinga et al. (2015) observed that dropout among urban slum dwellers in the Greater Accra region of Ghana was attributed to nominal benefits provided by the scheme. This observation was not surprising because as subsequent paragraphs of this analysis show, urban residents were mostly dissatisfied with shortage of drugs or quality of drugs served under the NHIS. And if these urban slum dwellers found themselves in the same or a similar situation, it made sense to perceive the benefits they had received as nominal.

For instance, in the qualitative interviews for this study, two urban participants expressed dissatisfaction with the quality of drugs prescribed under NHIS. These participants claimed that NHIS card holders are restricted to low cost drugs which in their view are not as effective in treating illnesses as other good quality drugs. A previously enrolled interviewee said:

“I didn’t renew my membership because every time I was down with malaria and visited the health centre the nurses prescribed Artesonate Amodaequene.”

In his view Artesonate Amodaequene is a cheap malaria drug, but he also suffered serious side effects when he used it to treat malaria. He added that:

“Now I don’t bother going to the clinic anymore. I just visit the drug store and buy Artemos Plus, which works perfectly for me without side effects. If they (NHIS) want people to stay with scheme they would have to improve the drugs”.

The other urban participant who has never joined the scheme said he has no plans of joining in future because his friends who are members of the scheme have complained about the poor quality of care they are receiving at health facilities.

Apart from poor quality of the drugs in the benefits package, some rural residents, including the previously enrolled and the never enrolled were not satisfied with the services rendered by the NHIS agents. Communities such as Goziel, Guripaala, Kul-Ora, Orphani and Tankuri did not have NHIS community agents. As a consequence, residents are required to travel to Jirapa anytime they need immediate attention. This creates a barrier to access to care because registration and renewal of membership becomes tiring exercise residents of affected rural villages.

6.7.3.2 Logistics issues

Poor logistics has constrained the enrolment activities of the scheme in the district. An official of scheme expressed regret that the scheme is unable to conduct effective outreach services because of logistical constraints. Apparently, the Jirapa district scheme also serves the Lambussie Karni District,

covering 202 communities in total. This makes it almost impossible to rely on one vehicle to provide services satisfactorily. This delays the taking of pictures for identity cards, and for that matter the delay in the issuance of membership identification cards. However, carrying out the entire enrolment process with limited logistics is challenging which explains why some remote areas are inadequately covered:

“We cannot go to them on a regular basis and the agent is not active so those who cannot travel here (Jirapa) to register or renew their cards are left uncovered”

Those who cannot travel to Jirapa are likely to be the poor, indigents, aged or the very sick that includes pregnant women. This implies that the very people the NHIS was established to prioritise in its coverage are being excluded because of logistical constraints. Addressing this logistical gap requires that the district scheme is adequately resourced with personnel, and logistics in the form of vehicles, motorbikes and bicycles, to facilitate easy movement of NHIS field officers and Community Agents to do the work.

The next section analyses the extent to which health care service delivery is acceptable to clients. The theoretical assumption is that the provision of culturally unacceptable services may deter clients from the use of services and this might have negative consequences for NHIS enrolments too.

6.7.4 Acceptability and NHIS services

Consistent with the quantitative results, the majority of users interviewed were satisfied with the work of the NHIS Agents. However, users perceived services relating to payment of premiums, NHIS identity card production and distribution

and timing for collection of contributions were mostly perceived to be unsatisfactory. On the contrary however, officials of the NHIS insisted that services provided by the scheme were user-friendly and acceptable. This research is of the view that beneficiaries may be more willing to enrol in the NHIS if services are perceived to be user-friendly but also similar to existing local income or risks pooling schemes. The following section presents qualitative findings on rigidities around the payment of premiums.

6.7.4.1 Rigidity of premium payment

In terms of timing of collection of contributions from informal sector workers, with the exception of the two officials of the scheme there was a consensus among users, providers, and agents that the timing of collection of contributions from informal sector workers, particularly farming households was mostly inconvenient. This is consistent with the quantitative results in which over 70 percent of survey participants were dissatisfied with the timing for collection of payments. De Allegri et al. (2006a) found rigid payment modalities to be a more serious barrier than the cost of premiums. In this study, a previously enrolled rural participant suggested that in addition to proper timing the NHIS could spread premiums over a reasonable period within a year instead of the current one-off annual payment system. He observed that:

“The current payment arrangement is rigid and unfavourable to most of us who have large families. We cannot get that kind of money (premiums for the entire household) any day. We should be allowed to pay in bits, spread over the whole year.”

As explained earlier in this thesis, the main source of livelihood for most rural households in Northern Ghana is seasonal agriculture (GSS, 2012). In the

Jirapa district 70.8 of the population are employed in agriculture (GSS, 2014). Interviewees concurred that since the main livelihood activity in the district is seasonal crop farming the best time to collect contributions is when they are harvesting farm produce and may have surplus to sell to raise funds to pay premiums. According to a participant who is a subsistence farmer by occupation:

“It is not possible that we can keep some money from the sale of farm produce and pay for health insurance any time of year. The best time is when we harvest. If we know when he (NHIS agent) is coming we will go to ‘Douri’ market, sell some grains and put the money aside. Unfortunately, he (NHIS agent) comes around unannounced but also at a time we not prepared financially.”

Carrin (2003) argues that timing of collecting payment influences access to health insurance. In order to increase access therefore it is advisable that schemes design favourable payment schedules that take into consideration the nature, timing and income sources of households. The two officials interviewed expressed different views when asked about the appropriateness of the timing for collection of premiums. Whereas the district official of the scheme and the Agents shared the view that the collection of premiums could be scheduled to coincide with the income flow of households, the official from the scheme’s regional secretariat insisted that there was nothing wrong with the timing. He said:

“There is nothing wrong with the timing. In fact, this is best we (NHIS) can offer. We are close to them as much as possible and people are free to pay the premiums anytime they have money. It is impossible to satisfy everybody, luckily we are satisfying the majority of subscribers.”

But about 65 percent of Ghanaians are not covered and perhaps some of them are not enrolled because of bad timing of collecting premiums. He disagreed with that view and argued that those who are interested in the scheme are making every effort to join:

“Most of these men who are complaining about poor timing spend money on other things every day. They drink alcohol and eat meat, some smoke cigarettes, they spend so much on funerals moving from one village to other, and yet they cannot afford to pay £10.00 a year for health insurance? Those who genuinely cannot pay (indigents) are being taken care of by the scheme. The rest of them need to save if health care is a priority to them.”

In his view the main reason most people are not enrolled is because they prioritise other things over their health. ‘Other things’ in this sense may include basic household needs. And if paying for health insurance mean that other basic needs are sacrifice, are users wrong to perceive the premiums as expensive and may lead to catastrophic spending? One of the ways to define catastrophic health expenditure is that if it exceeds 25% of total household expenditure (WHO, 2015c). Although the study did not manage to establish how much of households income per capita is spent on health care, given the large household sizes and the fact that majority of them are into subsistence crop farming as a main source of livelihood, it can be extrapolated that some households would exceed 25% of total household expenditure on health alone.

An important point to highlight in connection with rigid payment of premiums however is that whereas the NHIS seems to analyse the costs of premiums on individual basis the reality is that when it comes to enrolling in the NHIS the decision is normally a household affair. An important determining factor of enrolment has been the size of income of the household, and where this was

limited priority was accorded those members with high risks of falling sick (mostly women and children). This explains why adverse selection is a common employed by poor households as strategy to cope with the burden of health care costs and to avoid catastrophic spending.

6.7.4.2 Delay in the production of membership cards

Aside from the rigid payment system, delay in the production and issuance of membership cards is another service issue that appears to have adverse effects on enrolment in the NHIS. For security purposes the NHIA produces membership cards from one central point. But this slows down the production process as it takes three to six months to process and issue membership cards to new subscribers. This means that after a subscriber has paid their premium they still cannot access health care services free of charge until after three months when their cards are ready. While all twelve users interviewed were unimpressed with this delay, as much as 71.7 percent of the survey participants perceived the delay in issuing cards to be a source of inconvenience. Sometimes subscribers wait longer than the mandatory three months. An enrolled participant felt that he had been lured into joining the scheme when he said:

“They (NHIS staff) said I will get my card in three months, but now it is six months and the agent has been avoiding me.”

Another participant had thought that he was entitled to free care having paid his registration fee but was disappointed to learn at the point of service that he did not have free access to health care he had received his card. He showed me his receipts in disappointment and felt deceived by the NHIS. Although it is clear that the latter had misunderstood the way the scheme works, it is obvious that

the service rendered him was below his expectation. In the normal order of things health care should be accessible once the premium is paid. The whole idea of waiting for such a long time seems to stray away from the notion of the NHIS being a pro-poor social solidarity scheme. When asked for his understanding of the NHIS being a social solidarity scheme, an enrolled participant said:

“I understand we have to pay our contribution to keep the system running, but what is the point paying for a year and getting access to services after a half of the year is gone? Isn't it cheating?”

While the district manager admitted that this delay is down to bureaucracy and the scheme's weak capacity to decentralise the production of ID cards, negative perceptions like this have the tendency to discourage users from enrolling in NHIS. This corroborates Jehu-Appiah et al. (2011b) argument that the NHIS administrative arrangements resulting in delays in identity card production pose a potential barrier and an inconvenience for clients.

It was suggested that registration and renewal of membership could be done at the health facilities on behalf of the NHIS. In this sense participants can pay premiums at the health facility and access treatment immediately instead of waiting for at least three months to receive a membership card before they can access health care services. This suggestion may sound palatable yet it flags up some potential operational challenges. Firstly, as a result of increased utilization of health care services by NHIS subscribers the current workload on providers seems overwhelming and thus the danger that any additional responsibilities could have a negative impact on the quality of health care. Secondly, whereas the District official of the NHIS admitted to the need to draw

the scheme closer to health facilities, most especially the Jirapa hospital to ease renewal of membership, the danger of compromising the security of the production of cards is very high. In this regard, there seems to be no chance that the NHIS will pass on the responsibility of registration of its members to health facilities. The official explained that the NHIS produces the cards centrally; in a controlled way, because of the fear that decentralising it might lead to illegal or fraudulent production and distribution of cards by corrupt officials. Although his explanation makes some sense given history and experience, what is also obvious is that the current system of centralised production of membership ID cards is not fit for purpose anymore given the overwhelming level of dissatisfaction with the delay in issuance of cards. Therefore, decentralising or contracting out this function still remains a viable option.

6.7.4.3 Quality of Essential Drugs List (EDL)

Notwithstanding the general consensus that the NHIS benefits package is generous the question being asked is whether the services included in the package are delivered to clients in ways that are deemed acceptable. The quality of drugs in the NHIS's EDL has been criticized as poor and may not be as effective as alternative quality drugs in the open market. Some users find this unacceptable and have dropped out of the scheme as a result. Responding to this question an official at the Jirapa district NHIS disagreed with the view that most of the drugs on the EDL are cheap and poor in quality. He admitted that drugs on the EDL may be cheap in the market, yet very effective in treatment of illnesses:

“These are very effective drugs determined the Pharmacy Council and approved by the Ghana Health Service. They may be low in price but they are not poor in quality”

An important guiding principle for sustainable health insurance is costs containment, and this is very much in the vocabulary of the NHIS. Providers are not allowed to prescribe at wish but there is always a limit to their prescription decisions in any health insurance scheme. The reason for this is to ensure that the costs of drugs and services do not exceed the funds generated by the scheme. This is called costs containment:

“You take a look at the services we are providing and imagine that we allow providers a free hand to prescribe any drugs without cost in mind; we wouldn’t be able to reimburse them and the scheme will collapse. The objective of the scheme is to provide basic health care to all, but we are most interested in the poor and I am very sure that they are happy with our services. Those who want expensive drugs and can afford them are free to go private and pay out-of-pocket.”

However, this assertion appears to suggest that in the attempt to contain costs the scheme is excluding well-off groups whose expectations of quality service is being compromised. While universal health coverage is about providing health services, the concept of pro-poor should not be misinterpreted to mean services targeting only the poor. A pro-poor health insurance scheme such as the NHIS must primarily aim to serve the health care needs of the poor with provision of basic health care. This however, does not mean that well-off groups are left out of the scheme. In particular, the NHIS must capture well-off groups of the population to make it financially viable and sustainable. In order to do this, its services must be diversified in ways that make them acceptable to different beneficiary groups (poor, rich, rural and urban residents). A good case example

is Thailand's pluralistic health financing system that is designed to cater for the rich and the poor. The Thai scheme allows well-off groups to pay more to join schemes that provide additional services to basic services offered by the universal basic health care scheme. Although this type of system appears to compromise the principle of social solidarity of universal health insurance.

6.8 Summary of qualitative results on accessibility of the NHIS

The second section of the chapter synthesised qualitative results that relate to the NHIS. Like the quantitative results section, the results of the section were presented in line with the four thematic dimensions of access to health services; geographic accessibility, availability, affordability and acceptability of services. In the dimensions of access to care explored the results showed consistencies as well as divergent perceptions of access to the NHIS. Variation in perceptions were mostly based on the type of participant (enrolled and unenrolled user, provider or official of the NHIA), but also on the basis of area of residence (urban or rural).

The qualitative results on geographic accessibility of the NHIS are in sync with the quantitative results presented in the first section of the chapter. As expected most urban residents did not have difficulties accessing the NHIS office. This was also found in the survey results. The absence of Community Agents in some villages compels some rural residents to travel more than kilometres to Jirapa in order to access NHIS services. By WHO standards, more than 5 kilometres to a service point makes such a service not easily inaccessible to the poor (WHO, 2015c). Yet another important element with long distance is its costs implications to the user. This might be too expensive and unfordable to the rural poor, who would end up not being able to access to health care when

they need it. An often neglected challenge created by inaccessibility of the NHIS is the tendency for rural residents to resort to traditional medicine, which is cheaper and nearer to them. The potential danger in traditional medicine use is that it delays access to modern health care ends up making health care too expensive to bear or may even result deaths. To make things worse the NHIS is poorly resourced and therefore faces a difficult challenge of extending services to remote rural communities. Poorly equipped with only one vehicle and one motorbike, the district NHIS is unable to conduct effective outreach services to the dispersed rural communities in the district.

Affordability of premiums was explored largely in relation to users' ability to pay premiums and renew their membership on time. It also addressed issues around exemption, adverse selection and moral hazards in the NHIS. The findings on costs of premiums were mixed; whereas users, providers, and NHIS agents concurred that the premiums were unaffordable to the poor, management of the scheme thought the opposite was true. The flat rate premium of GH¢ 12.00 (about £2.00) was perceived to be unaffordable to the poor partly due to the large households sizes that is typical of rural areas in Ghana. And the high prevalence of adverse selection appears to back this claim. But officials of the NHIS insist that the premiums are affordable and indigents were entitled exemptions. However, the stringent eligibility criteria for exemptions appears to be excluding indigents from benefitting from the scheme.

Availability of NHIS services was evaluated in relation to the attractiveness of the benefits package and the scheme's capacity to extend enrolment services to rural residents. Similar to the perceptions of costs of the premiums, views on

availability of NHIS services were mixed. Whereas a consensus was reached by participants that the benefits package is attractive, perceptions of the availability of these services varied between urban and rural areas. All nine rural residents interviewed perceived the current NHIS benefit package is attractive. And while most rural residents received the drugs needed to treat their illnesses, some urban residents raised questions about the quality and availability of these services to users. They complained that the benefits are nominal and drugs frequently ran out stock. Doubts over the availability of services may diminish enrolment in the scheme.

On acceptability of services, the majority of users interviewed were satisfied with the work of the NHIS Agents. However, they perceive services relating to payment of premiums, NHIS identity card production and distribution and timing for collection of contributions were mostly perceived to be inconvenient. The NHIS officials however have a view contrary to this; they insist that services provided by the scheme were user-friendly and acceptable. Positive perceptions of the appropriateness of services has the potential to increase and retain enrolment in the NHIS. Negative perceptions on the other hand would impede the schemes progress towards universal coverage.

The next chapter presents quantitative and qualitative results on the accessibility of health facility services. The argument is that access to health insurance does not automatically guarantee access to health care especially in rural areas where inequity in the distribution of health resources is very visible.

Chapter seven

7.0 Results on accessibility of health facilities

7.1 Introduction

Carrying on from chapter six where the focus was on participants' perceptions of accessibility of the NHIS, this chapter focuses on accessibility of care in health facilities, especially the Jirapa district hospital which happens to be the only hospital in the district. Consistent with the order of presentation in the previous chapter the results are presented in line with the four thematic dimensions of access to health care; geographic accessibility, availability, affordability and acceptability of services (Peters et al., 2008, Penchansky and Thomas, 1981). The chapter commences with a presentation of quantitative results, which provides a broader scope of participants' perceptions of access to health facilities in the district. The second section of the chapter provide a synthesis of the key issues that emerged from the interviews.

7.2 Results based on quantitative analysis

Under each dimension participants' perceptions are analysed using SPSS. This involves analysis using simple frequency distribution, but most importantly the chi-square (X^2) statistic help determine significant relationships between categorical variables.

7.2.1 Geographic accessibility of health facilities

Long distance to facilities impedes easy access to health facilities. The Jirapa district has a total land size of 1,188.6 square kilometres with a population of 88,402. Unfortunately however, as much as 85.6 percent of this population reside in some 138 dispersed rural communities (GoG, 2013, GSS, 2014). Access to health facilities seems hampered by the limited distribution health

resources in the district. In terms of health infrastructure, the district has twenty three health facilities: one district hospital, eight health centres, and fourteen Community-Based Health Planning and Services (GHS, 2012c). A summary of health facilities and the location in the district is provided in table 4.2.4B, chapter four. The ensuing section presents findings on user perceptions of convenience of distance to health facilities in the district.

7.2.1.1 Convenience of distance to health facilities

In terms of the convenient location of facilities, the analysis of table 7.2.1.1 shows a significant relationship between area of residence of participants and convenient location of health facilities. An overwhelming 71.4 percent of urban dwellers find the location of health facilities to be convenient. On the contrary however, only 44.7 percent of rural dwellers perceived the location of health facilities to be convenient. This finding was expected because in addition to the district hospital, urban residents also have access to the Jirapa Urban Health Centre located at the heart of Jirapa town. Rural residents on the other hand have limited access; created by the urban oriented nature of the country's health system (Schieber et al., 2012b, MoH, 2014, Twumasi, 1975). In fact, only four of the twelve communities studied had health centres, and although other health centres are within a walking distance, from observation the majority of communities are scattered around a large territorial size of 1,188.6 square kilometres. By implication many rural residents are doing more than the recommended 5 kilometres travel distance to the nearest health facility. For most rural residents, travelling to the Jirapa district hospital appears to be the main distance related challenge they face. Table 7.2.1.1 show the area of residence and perceptions of nearness to a health facility.

Table 7.2.1.1: Area of locality and nearness to a health facility

Characteristics of the area where the house is located		Is the health facility located near where you live?		
		Yes	No	Total
Urban	Count	15	6	21
	%	71.4	28.6	100
Rural	Count	71	88	159
	%	44.7	55.3	100
Total	Count	86	94	180
	%	47.8	52.2	100

Based on health insurance survey (2013). Pearson chi-square (0.021)

7.2.1.2 Nature of road to health facilities

The challenge of long travel distance to health facilities is deepened by the lack of accessible roads in the district (poor road network is a nationwide problem). The analysis in table 7.2.1.2 shows a significant relationship ($X^2=0.000$) between the area of residence and perceptions of good roads to health facilities in the district. The table shows that whereas 81 percent of urban residents perceive the roads to health facilities to be in good shape, as much as 74.8 percent of rural residents view the network roads to health facilities in their area to be in bad shape. By implication urban households who have access to good roads linking them to a health facility were less likely to have their access health care services impeded by the nature of roads in their locality. Rural households on the other hand, without good road network were more likely to have their access to health care services impeded by the bad nature of roads linking them health facilities. This is consistent with remarks from nurses which attribute

delay in facility visits to long distance and bad nature of the roads in the districts (see later).

Table 7.2.1.2: Area of residence and satisfaction with the good roads to health facilities

Characteristics of the area where the house is located		Are there good roads to the health facility?		
		Yes	No	Total
Urban	Count	17	3	21
	%	81.0	14.3	100
Rural	Count	40	119	159
	%	25.2	74.8	100
Total	Count	57	122	180
	%	31.7	67.8	100

Based on health insurance survey (2013). Pearson chi-square (0.000)

The consequence of poor geographic access faced by rural residents may also have serious costs implications in the sense that where roads linking rural communities to health centres are bad, vehicular transport becomes scarce and expensive and the poor who cannot afford to pay expensive transport fares are deprived of access to health care. Affordability of transport costs is analysed later in this chapter.

7.2.2 Availability of services at health facilities

Availability of services was assessed based on participants' perceptions of the effectiveness of the different types of services rendered by health facilities in the district. Health facilities are mandated to provide quality health care services and treatments to users. Thus the objective was to compare the availability of health services between urban and rural places on the premise that the

availability of health care services may influence enrolment in the NHIS. The survey questions ranged from the availability of personnel and time spent at the point of service, dispensary services, laboratory services, outreach services and ambulance services.

7.2.2.1 Time spent at health facilities

The perceptions were mixed, but varied between urban and rural areas in accordance with the varying sources of care (hospital, health centres, and CHPs). Whereas in general, the majority of participants seemed unsatisfied with the length of time spent at a health facility, urban participants seemed significantly more unsatisfied than their rural counterparts. Table 7.2.2.1A demonstrates that 76.2 percent of urban participants compared to 52.8 percent of rural participants perceived health facilities they often visited as being overcrowded. This may be attributed to overcrowding at the Jirapa hospital which makes clients wait too long to receive treatment. The Jirapa district hospital, as indicated earlier is the main referral point at the district level and given the limited distribution of health facilities and personnel across the district it was not a surprise that a large proportion of urbanites were unsatisfied with the length of time spent at the hospital.

Table 7.2.2.1A: Area of residence and satisfaction with time spent at health facilities

Characteristics of the area where the house is located		Are health facilities often crowded?		
		Yes	No	Total
Urban	Count	16	5	21
	%	76.2	23.8	100.0
Rural	Count	84	75	159
	%	52.8	47.2	100
Total	Count	100	80	180
	%	55.6%	44.4%	100

Based on health insurance survey (2013). Pearson chi-square (0.004)

Similar to the length of time spent in health facilities, table 7.2.2.1B illustrates that the majority of participants waited longer than necessary to be seen by a doctor. The figure was significantly higher (76.2%) among urban participants compared to rural participants (52.2%). A Pearson chi-square ($X^2 = 0.004$) is an indication of a relationship between locality and time spent waiting to see a doctor at the hospital. This outcome was expected against the background that the Jirapa district hospital had only one medical doctor at the time of this research. It puts the doctor-population ratio at 1:88402 compared to the WHO recommended doctor-population of 1:600. Dissatisfaction with the length of time spent to receive treatment from a doctor has been explored in previous studies. Macha et al. (2012) researched the factors that influence the burden of health care financing and the distribution of health care benefits in Ghana and found that the lack of doctors makes clients wait too long to receive treatment. They observed in the study that some clients were asked to go home and return the next day. Earlier studies (Jehu-Appiah et al., 2011b, Atinga, 2012a, Atinga et al., 2015) also associated dropout from the scheme to dissatisfaction with the quality of care in public health facilities.

Table 7.2.2.1B: Area of residence and time spent waiting to see a doctor at the hospital

Characteristics of the area where the house is located		Do you normally have to wait for long to get access to a doctor at the hospital?		
		Yes	No	Total
Urban	Count	16	5	21
	%	76.2	23.8	100
Rural	Count	83	76	159
	%	52.2	47.8	100
Total	Count	98	81	180
	%	54.4	45.0	100

Based on health insurance survey (2013). Pearson chi-square (0.004)

7.2.2.2 Conduct of outreach visits

Contrary to the significant negative perceptions of the length of time spent at health facilities and in seeking the attention of a doctor, the provision of outreach services was mostly satisfactory to both urban and rural participants. Table 7.2.2.2 show a relationship between locality and satisfaction with community outreach services. It shows that whereas 95.2 percent of urban participants were satisfied with the provision of outreach services, 88.7 percent of rural residents were satisfied with these services. The slight variation in statistics may be attributed to transportation challenges faced by service providers in rural areas. The qualitative data throws more light on the barriers that hinder outreach service provision in the rural parts of the district.

Table 7.2.2.2: Area of residence and satisfaction with community outreach services

Characteristics of the area where the house is located		Community outreach service is regular and effective		
		Yes	No	Total
Urban	Count	20	1	21
	%	95.2	4.8	100
Rural	Count	141	18	159
	%	88.7	11.3	100
Total	Count	160	19	180
	%	88.9	10.6	100

Based on health insurance survey (2013). Pearson chi-square (0.015)

7.2.2.3 Availability of dispensary services

Analysis of dispensary services also showed significant relationship between locality and satisfaction with dispensary services. In table 7.2.2.3, an overwhelming 95.2 percent of urban participants and 74.8 percent of rural participants perceived the location of the drug dispensaries to be convenient. Whereas the figure for urban participants was expected with respect to the availability of dispensary services at the hospital as well as a number of established drug stores in Jirapa township, it came as a surprise that as much 74.8 percentage of rural residents were satisfied with convenience of dispensary care. From observation none of the 12 communities visited had an established drug store. At the same time, it is fair to say that most rural health centres do provide some very basic dispensary services to clients and that may explain the high percentage of satisfaction.

Table 7.2.2.3: Area of residence and satisfaction with dispensary services

Characteristics of the area where the house is located		Is the location of the drug dispensary convenient?		
		Yes	No	Total
Urban	Count	20	1	21
	%	95.2	4.8	100
Rural	Count	119	40	159
	%	74.8	25.2	100.0
Total	Count	139	41	180
	%	77.2	22.8	100

Based on health insurance survey (2013). Pearson chi-square (0.036)

7.2.2.4 Laboratory service adequacy

The analysis of laboratory service adequacy also established significant difference between urban and rural areas (table 7.2.2.4). Whereas 85.7 percent of urban residents perceive this service to be adequate and effective, as much as 79.9 percent of rural residents perceive it to be inadequate. Again, this result was expected because aside from the Jirapa district hospital that has a medical laboratory none of the rural health facilities in the district has a laboratory attached to it. This has costs implications for the rural poor in the sense that those clients in rural areas who have disease conditions that require laboratory tests may have to pay for transportation to visit the laboratory in Jirapa. An important point to highlight in this regard is that the absence of such an essential service in rural health centres contradicts the equity objective of the NHIS; to ensure that every Ghanaian resident (rural public included) has equitable access to basic health care at the time of need. High referral to the laboratory in Jirapa also has the danger of creating longer queues and delay in laboratory services provision in the entire district.

Table 7.2.2.4: Area of residence and adequacy of laboratory services

Characteristics of the area where the house is located		Are the laboratory services adequate and effective?		
		Yes	No	Total
Urban	Count	18	3	21
	%	85.7	14.3	100
Rural	Count	32	127	159
	%	20.1	79.9	100
Total	Count	50	130	180
	%	27.8	72.2	100

Based on health insurance survey (2013). Pearson chi-square (0.000)

7.2.2.5 Satisfaction with ambulance services

Yet, another service availability issue analysed in this study is participants' satisfaction with ambulance services in the district. Table 7.2.2.5 shows that although the question did not address the issue of costs the majority of participants were satisfied with ambulance service provision in the district. There is however a significant difference in perception between urban (61.9%) and rural residents (57.9%). Such a difference may be attributed again to nearness to the district hospital where the ambulance services is stationed.

That said the percentage of participants who were unsatisfied with the ambulance services was significant and cannot be ignored. Among rural participants for example, as much as 42.1 percent of them were unsatisfied with the service and 33.3 for urban participants. This calls for measures by the NHIS, the Ghana Health Service and the National Ambulance Service to improve the supply of ambulance services to rural places. This would help improve the vertical equity goal of the NHIS and the health system as a whole.

Table 7.2.2.5: Area of residence and satisfaction with ambulance service

Characteristics of the area where the house is located		Is the ambulance service effective?		
		Yes	No	Total
Urban	Count	14	7	21
	%	66.7	33.3	100
Rural	Count	92	67	159
	%	57.9	42.1	100
Total	Count	105	74	180
	%	58.3	41.1	100

Based on health insurance survey (2013). Pearson chi-square (0.019)

7.2.3 Affordability - Costs of transport to health facilities

Aside from the costs of NHIS premiums analysed in the previous chapter, affordability of health care services has also been analysed in terms of users' ability to pay transport fares to health facilities especially when the objective is in assessing equity in the distribution of health resources between urban and rural areas. Various accessibility frameworks have observed that unaffordable transport related costs may delay access or even deter rural residents from seeking treatment (Aday and Andersen, 1974b, Aday and Andersen, 1981, Penchansky and Thomas, 1981, Peters et al., 2008, McIntyre et al., 2009). Thus the analyses that follow present participants' perceptions of the affordability of transport services to health facilities in the district.

In table 7.2.3, as much as 86.2 percent of rural participants perceived lorry fares to Jirapa to be unaffordable. On the contrary, most urban participants (76.2%) thought transport fares to facilities were affordable. Pearson chi-square ($X^2=0.000$) establishes a significant relationship between locality and perceptions of the affordability of cost of transport to health facilities. This

outcome was expected in respect of the urban-biased distribution of health resources in the country and Jirapa district for that matter. Urban residents have an advantage, first, in the sense that the health facilities are located in the centre of town where they reside and they may not have to pay a lot in transport costs to access care. Secondly, urban residents tend to have higher incomes than rural residents (GSS, 2007, GSS, 2015). It was therefore not surprising that the cost of transport was less of a barrier of access to health care for them. Cost of transportation as a barrier of access to health services for rural residents has been a research finding in earlier studies (Macha et al., 2012, Apoya and Marriott, 2011, Gobah and Liang, 2011a, Mills et al., 2012b, Akazili et al., 2012).

Table 7.2.3: Area of residence and perceptions of affordability of cost transport to health facilities

Characteristics of the area where the house is located		Is the cost of transportation to health facility affordable?		
		Yes	No	Total
Urban	Count	16	5	21
	%	76.2	23.8	100
Rural	Count	22	137	159
	%	13.8	86.2	100
Total	Count	38	142	180
	%	21.1	78.9	100

Based on health insurance survey (2013). Pearson chi-square (0.000)

7.2.4 Acceptability of health care services

Perceptions of the quality of health services provision are important factors governing households' decisions about enrolling and remaining in the NHIS

(Jehu-Appiah et al., 2011b, Bruce et al., 2008, Arhinful, 2003). This section presents perceptions of the quality of services provided by NHIS accredited health facilities. Again, the objective is to compare users' perceptions of the quality of service provision between urban and rural areas. The analyses also compare enrolment status and level of satisfaction with the quality care in search of any significant relationships between these variables. Poor attitude of nurses may discourage the use of health facilities. This may vary between urban and rural places causing variations in enrolment or dropout in the NHIS. The ensuing analyses were not statistically significant, yet it makes sense to report on user perceptions of the quality of health care services since it represents an important dimension of access of the conceptual framework adopted in this study.

7.2.4.1 Attitude of Providers

Table 7.2.4.1 shows that health personnel were mostly friendly and respectful. The percentage was however, higher among rural participants (82.9%) compared to their urban counterparts (71.4%). However, the Pearson chi-square ($X^2=0.202$) shows that there is no significant relationship between area of residence and friendliness of care. Thus, positive perceptions of the attitude of nurses may not necessarily encourage enrolment and retention in the scheme. Earlier researches however, have shown that poor attitude of nurses could discourage the use of health facilities in certain parts of Ghana (Bruce et al., 2008, Jehu-Appiah et al., 2011b, Macha et al., 2012, Mills et al., 2012b).

Table 7.2.4.1: Area of residence and friendliness of care

Characteristics of the area where the house is located		The health facility staffs are respectful and friendly?		
		Yes	No	Total
Urban	Count	15	6	21
	%	71.4	28.6	100
Rural	Count	131	28	159
	%	82.9	17.1	100
Total	Count	146	34	180
	%	81.6	18.4	100

Based on health insurance survey (2013). Pearson chi-square (0.202)

7.2.4.2 Perceptions of the quality of drugs (EDL)

Perceptions of the quality of drugs prescribed under the NHIS may also influence enrolment and retention of members in the NHIS. Table 7.2.4.2 shows that 91.1 percent of rural residents compared to 81 percent of urban residents were satisfied with the quality of drugs prescribed under the NHIS. Like friendliness of care, the perceptions of the quality of drugs prescribed under the NHIS is also higher among rural residents compared to urban residents. This result however was statistically insignificant ($X^2=0.145$), implying that there is no significant relationship between area of residence and perceptions of the quality of drugs. Thus, such positive perceptions among rural residents may not necessarily influence enrolment and retention in the NHIS. Yet, previous studies (Atinga, 2012a, Atinga et al., 2015, Jehu-Appiah et al., 2011b) have argued that perceptions of the quality of drugs is very influential in enrolment and retention

in the NHIS. Further clarification on this issue is provided in the qualitative results that follow.

Table 7.2.4.2: Area of residence and perceptions of the quality of drugs

Characteristics of the area where the house is located		Is the quality of the prescribed drugs good?		
		Yes	No	Total
Urban	Count	17	4	21
	%	81	19	100
Rural	Count	144	16	159
	%	91.1	8.9	100
Total	Count	161	20	180
	%	89.9	10.1	100

Based on health insurance survey (2013). Pearson chi-square (0.145)

7.2.4.3 Satisfaction with the overall quality of care

The findings in table 7.2.4.3 also suggest that more than half (63.3%) of rural residents were satisfied with the overall quality of care they had received from the health centres in their area compared to 52.4 percent of urban residents. Although the Pearson chi-square ($X^2=0.333$) suggests that there is no significant relationship between area of residence and satisfaction with the quality of care, the variation in perceptions of overall quality of care is supported by observations made during interviews with nurses at health facilities. Whereas in most cases there were no queues at health centres, the district hospital on the contrary, had patients queuing at the OPD (see figure 7.3.3.1). This may partly be due to high volumes of referrals from rural health centres arising from limited health resources in these facilities.

Table 7.2.4.3: Area of residence and satisfaction with the quality of care

Characteristics of the area where the house is located		Overall, are you satisfied with the quality of health care you get in your area?		
		Yes	No	Total
Urban	Count	11	10	21
	%	52.4	47.6	100
Rural	Count	100	58	158
	%	63.3	36.7	100
Total	Count	111	68	179
	%	62	38	100

Based on health insurance survey (2013). Pearson chi-square (0.333)

Area of residence and perceptions of the overall quality of health care may help in highlighting the difference in perceptions among urban and rural participants. What is equally important is to analyse the relationship between enrolment status and perceptions of the overall quality of health care. The results may help establish the extent to which quality of health care may influence enrolment in the scheme. Although the results seen in table 7.2.4.4 suggest that the majority of participants were satisfied with the overall quality of care given in health facilities, it must be mentioned that the number of participants who were dissatisfied was considerably high. An interesting aspect of this statistic is that previously enrolled participants recorded the highest rate of dissatisfaction (46.7%) compared to the currently enrolled (32.2%) and the never enrolled (35%). Similar to the previous scenario, the result is not statistically significant;

meaning that there is no significant relationship between enrolment status and satisfaction with the quality of care.

Table 7.2.4.4: Enrolment status and satisfaction with the quality of care

Characteristics of the area where the house is located		Overall, are you satisfied with the quality of health care you get in your area?		
		Yes	No	Total
Yes	Count	40	19	59
	%	67.8	32.2	100
Previously enrolled	Count	32	28	60
	%	53.3	46.7	100
Never enrolled	Count	39	21	60
	%	65	35	100
Total	Count	111	68	179
	%	62	38	100

Based on health insurance survey (2013). Pearson chi-square (0.225)

7.2.5 Summary of the section

Given the limited number of health facilities serving a large population that is geographically dispersed long travel distance to health facilities remains an access barrier to rural residents. The results have shown that the location of health facilities was mostly convenient for urban residents and inconvenient to most rural residents. For instance, both the district hospital and the Jirapa Urban Health Centre are at touching distance to many most urban residents. However, the situation is not the same for residents of the 119 rural communities in the district who are without facilities and therefore required to travel 5 kilometres or more to access health care services. In addition to long distance, the roads are in bad shape and availability of transport to Jirapa to access services is poor. These findings are consistent with previous research

findings that have shown that long distance to facilities and poor public transport continue to create barriers of access to health care for rural dwellers (Macha et al., 2012, Akazili et al., 2012, Mills et al., 2012b, Apoya and Marriott, 2011, Gobah and Liang, 2011a).

In terms of availability of services, most participants were unsatisfied with the length of time spent at the Jirapa hospital compared to the length of time spent at rural health facilities. This appears to be caused by the limited staffing coupled with the increased demand for care caused by the introduction of the NHIS. Contrary to unsatisfactory perceptions of the length of time spent at the hospital and in seeking the attention of a doctor, the provision of ambulance, dispensary and outreach services was mostly satisfactory to both urban and rural participants although this varied by locality. The analysis of laboratory services adequacy on the hand showed that urban residents were more satisfied than rural residents. This result was expected because aside from the Jirapa district hospital that has a medical laboratory none of the rural health facilities in the district has a laboratory. The results, thus, demonstrate that with the exception of perceptions regarding overcrowding and time spent seeking the attention of a physician, rural residents appear to be more disadvantaged in all the other dimensions of care explored.

In terms of affordability, the cost of transport to facilities seemed to be a challenge faced mainly by rural residents. Whereas most rural participants perceived lorry fares to Jirapa to be unaffordable, most urban participants thought transport fares to facilities were affordable. This outcome was expected given the uneven distribution of health resources in Jirapa district and the country generally. Two health facilities are located in the centre of town which

means urban residents may not have to pay a lot in transport costs to access care but they also tend to have higher incomes than rural residents.

The analysis of acceptability of health care has showed that, although perceptions varied between urban and rural areas, the acceptability of health care was highest among rural residents compared to urban residents. Like friendliness of care and prompt service provision, the perception of the quality of drugs prescribed under the NHIS is also higher among rural residents compared to urban residents. And more than half of rural residents were satisfied with the overall quality of care they had received from the health centres in their area compared to 52.4 percent of urban residents. However, these results are not statistically insignificant, and therefore cannot be the basis for drawing conclusions.

Although these findings were expected it is important to highlight that positive perception of the quality of care among rural residents is an indication of their preference for a system of care that puts more emphasis on the social aspects of care. The opposite seems true for urban residents. And these perceptions may influence enrolment and retention in the NHIS. The next main section of the chapter presents the qualitative results that relate to accessibility of health facilities in the district.

7.3 Qualitative results that relate to accessibility of health facilities in the district

Whereas the quantitative results provided a broader picture of participants' perceptions of access to health facilities in the district, this section presents a synthesis of the key issues that emerged from the quantitative interviews. Semi-structured interviews were conducted with users of health services, officials of

the scheme, district, providers, doctors, nurses and traditional medicine practitioners (TMP) to gain first hand in-depth information on the dimensions and determinants of access to health insurance and health services in the district. Like the previous sections, the results of the section are presented in line with the four thematic dimensions of access to health services; geographic accessibility, availability, affordability and acceptability of services.

7.3.1 Geographic accessibility of services

Long distance to health facilities is a disadvantage faced by rural residents globally, but it poses a bigger challenge in low-income countries where health facilities are thinly spread (Peters et al., 2008). The ensuing paragraphs present in-depth findings on geographic accessibility of health facilities. Geographic accessibility of health care looks at distance to health facilities as well as the ability of providers to pay outreach visit rural areas. The next segment assesses whether distance impedes access to health care at facilities, and whether this varies between rural and urban areas.

7.3.1.1 Is distance as a constraining factor?

From the interviews with users it appears travelling to the district hospital in Jirapa is the main distance challenge facing rural residents. For most of them Jirapa is beyond a walking distance, and this is compounded by expensive transport services. As a result, travelling to Jirapa for a referral is poses an access barrier to the poor in remote places. Surprisingly however, in communities where health facilities did not exist walking more than 5 kilometres to the nearest health centre or clinic was not seen as a barrier to accessing health care. This outcome was not expected because like most districts in the

region the Jirapa district has a dispersed settlement pattern, and in fact only four of the twelve communities studied had health centres. This notwithstanding, this finding is consistent with the quantitative results in which the majority 65.4 percent of rural residents perceived the distance to health facilities to be convenient.

But nurses had a different view on this matter. They find long distance to health facilities to impede early visits of health facilities. As many villages within the catchment areas of sub-districts are more than 5 kilometres away from the nearest health facility most patients delay treatment, self-treat or resort to traditional medicine as the first option to address their health needs. A Medical Assistant observed that:

“The majority of patients come here as last resort. They come when here only when self-treatment or traditional medicine has failed them.”

A public nursing officer at the Jirapa district health directorate agreed with the nurses that distance is a major challenge to providers and users alike, and as a consequence some clients visit the health facility only when critically ill. She said:

“Long travel distance is one of the reasons why we are still having home deliveries in the villages.”

The CHPs concept was intended to reduce distance to health facilities in rural areas. Unfortunately, these centres are understaffed. In places where the CHPs compound is being managed by male nurses, pregnant women within the catchment area are bypassing such facilities to far away facilities to receive treatment from a female nurse. Others even prefer to visit a Traditional Birth Attendant nearby. Therefore, the dispersed distribution of the population, the

poor state of roads and the lack health centres in most rural areas does not support the effective delivery of health care services to users. This situation, in the view of providers has the tendency to negatively affect NHIS enrolment. A public nursing officer said:

“If users are not getting the services they signed up for, they wouldn’t be motivated to renew their membership.”

Aside from dropping out of the scheme, however, delay in treating illness has implications for the amount of time and resources needed to treat a simple case that has been allowed to degenerated into a complex one. Normal malaria treatment that cost about GH¢10.00 (£2.00)⁴, goes up to GH¢30.00 (£6.00) when untreated and allowed to transition to a complicated stage. Such extra costs create financial strain for individuals or households when they are not insured or for the NHIS when they are insured. Bridging the geographic access gap between rural communities and health facilities is an important policy reform that requires building health infrastructure in rural places as well as improving the road infrastructure in these places. Consistent with these findings, I observed during the data collection exercise that the roads connecting communities to Jirapa are in terrible shape.

However, further interactions with participants revealed that although distance to facilities cannot be discounted as a barrier of access to care, irrespective of enrolment status, the costs of services appears to be the most pressing worry to many rural residents. A previously enrolled participant conceded that although distance to health facilities was not convenient the main reason she dropped out of the scheme was because of high of premium:

⁴ exchange rate: £1.00 = ¢5.00

“Walking to the clinic and back is very tiring, but the main reason I am not enrolled now is because I didn’t have money to renew my membership before it expired.”

On his part a never enrolled interviewee said that although the distance to facilities is not favourable, cost of the health insurance premium is the main reason he has never joined the scheme. He said:

“I just managed to raise enough money for my wife and two of my younger children to pay their premiums. My three older sons and I have never enrolled in the scheme because is too much money and we can’t afford it.”

For this set of users therefore, distance to health facilities is not a serious barrier compared to costs of premiums. However, one group of clients who find distance to health facilities most challenging is pregnant women. The findings show that whereas distance is not a serious barrier to access for most rural residents, for pregnant women in rural places however, walking to health facilities becomes a struggle in the later stages of their pregnancy. When asked how she managed to regularly attend antenatal sessions; a young mother of two from the Tankuri (a village in Douri sub-district) said she was transported on a bicycle to the Douri Health Centre for care during her two pregnancies by her husband. But it was a difficult experience:

“Sitting on the bicycle carrier was stressful particularly in the third trimester of my pregnancy, yet I find myself in a privilege position because some of pregnant women in here go to the health centre on foot.”

7.3.1.2 Limited antenatal visits

A key function often played by health providers is the conduct of outreach antenatal visit to villages considered to be too far away from the health centre. The purpose is make antenatal care more accessible to pregnant women

remote rural areas. Pregnant women accepted that midwives have been visiting communities but also added that these visits were limited. This compelled them to visit the facilities during some stages of the pregnancy.

“They come to see us sometimes, but at the same time we (pregnant women) are required to visit the facility for antenatal care at certain stages of the pregnancy and those without any means of transportation go on foot.”

This shows that it is not users alone who face transportation difficulties, health care providers also face challenges when it comes to conducting outreach services in rural places. According to the four sub-district heads interviewed the villages they cover are many and disperse yet the roads are in a poor state. This, they said, makes outreach services difficult. One nurse said:

“We are unable to visit more than one community in a day because the communities are far apart and the roads are in bad shape.”

The nurses stressed that long distance to facilities coupled with the poor state of the roads is the reason TBA deliveries are still common in the district. In Jirapa Urban Health Centre, a Medical Assistant recalled instances where some pregnant women regularly attended antenatal clinics but were delivered at home by TBAs because they could not make it to a health facility due to lack of transport. In Yaga, a nurse in charge said referring patients to Jirapa is always a challenge to them:

“The point here is that we don’t have a midwife which means that obstetric and other complications must be referred to Jirapa hospital, yet at the same time we don’t have a van or ambulance on standby. And when you call for an ambulance, you’re told it’s gone to pick up a patient in Hain. Hain is at the other end of the district and you are told the ambulance is gone to Hain and you should expect it arrive after five hours”, she lamented.

The remote nature of settlements coupled with limited and poorly resourced health facilities deprives some rural residents of the much needed prompt care even when they have NHIS membership. In spite of the free maternal care provided by the NHIS some pregnant women in rural areas are still visiting TBAs, and providers attribute this to their inability to walk a long distance to facilities. This is a clear indicator of inequity in service delivery under the NHIS because urban residents do not suffer these access barriers. The next section presents qualitative results on costs of accessing health facilities in the district.

7.3.2 Affordability constraints

In chapter six, affordability was explored in relation to users' ability to pay premiums and renew their membership on time. In this chapter affordability is examined in terms of users' ability to pay the cost of travel to health facilities as well as the costs of expenses on food and lodging when they are on admission at the Jirapa district hospital. This does not include out of pocket payment (OOP) at the point of service in the sense that the study focuses on the extension of NHIS services. The argument is that being a member of the NHIS does not automatically guarantee access to health care especially in a disperse settlements where facilities thinly spread and the costs of travel to facilities and maintenance may be too expensive to bear. The extent to which these added costs influence enrolment in the NHIS is assessed below.

7.3.2.1 Costs of travel to health facilities

As indicated in the previous section of this chapter, accessing the nearest health facility did not pose a serious challenge to most rural residents. However, travelling to Jirapa hospital for care poses a financial challenge to most rural

residents. Rural participants perceived lorry fares to Jirapa to be very high. And whereas this was also found in the quantitative analysis, previous research findings have also highlighted high costs of transportation as an important barrier of access to health services in rural areas (Macha et al., 2012, Apoya and Marriott, 2011, Gobah and Liang, 2011a, Mills et al., 2012b, Akazili et al., 2012). As expected however, costs of transportation do not impede access to care in urban areas because two health facilities (Jirapa hospital and Jirapa urban health centre) are located in the centre of town close to their places of residence. They may not have to pay transport fares to access health care. However, rural residents are charged a fee of GH¢21.00 to secure the service of an ambulance to transport a sick person to Jirapa. Secondly, but also consistent with the regression analysis, rural residents tend to have lower incomes than their urban counterparts (GSS, 2007). Thus, nearness to facilities coupled with relatively better incomes makes the cost of travel to facilities less of a barrier of access to health care to urban residents. This calls for the need to improve transport services in the district. The number of ambulances allocated to the Jirapa hospital has to increase from one to a number that can adequately serve the 13,911 households in the district (GSS, 2014). But it also brings to the fore the need for ambulance services to be included in the NHIS benefits package. Officials of the NHIs agree that ambulance service is a basic health resource that can make health care more accessible to the rural public. Unfortunately, unlike other clinical services, ensuring the judicious use of ambulances at health facilities appears to be beyond the capacity of the NHIS. They argued that running ambulance services is an expensive venture yet it is impossible for the scheme to track the expenditure and income generated and ensure that it does not create additional financial burden for the scheme.

7.3.2.2 Costs of other services

In addition to expensive transport fares, the costs and expenses on food and lodging while on admission at the Jirapa hospital also emerged as having serious financial consequence for rural residents. Whereas urban residents do not worry about additional cost of food when a relative is admitted at the hospital, rural residents are burdened with expenditure on food and other essentials. While the hospital has an obligation to provide food for the sick, relatives who are caring for the sick on admission have to cater for themselves through the period. Thus, feeding and any lodging related expenses become an extra financial burden that is normally shouldered by the patient's household. As a result of this some clients in rural areas resist or refuse to accept referral to the Jirapa hospital. The nurses in rural health centres revealed there are times when clients plead not to be referred to the Jirapa hospital for further treatment:

“Sometimes they (clients) are begging me not to refer them to Jirapa because they don't have the money to stay there. They need to buy food, soap and other things while they take care of the sick relative.”

Examples like this throw up the debate about whether the NHIS could do more in terms of preventive care. The scheme's benefits package covers mainly curative care at the expense of preventive care. The disadvantage for rural residents in this connection is that the health facilities nearest to them tend not have higher cadre health professionals to provide the needed care without frequently referring to Jirapa. The next section of the chapter explores this issue in some detail.

7.3.3 Availability constraints

This section presents qualitative results on availability of health care services based on the point of view of users of health care services, providers, health and the NHIS management. Similar to the quantitative results, the questions ranged from the availability of personnel, prescribed drugs, ambulance and laboratory services.

7.3.3.1 Overcrowding of health facilities

Overcrowding of health facilities in recent times has been attributed to a variety of factors. The first is the limited availability of health facilities and personnel to provide speedy services. This has been worsened by the increase demand for care triggered by the introduction of the NHIS. Interestingly however, users perceive health centres to be more convenient to visit than the district hospital in terms of speed of service delivery. One of the reasons is that the shortage of midwives and medical assistants at health centres, which has resulted in high volume of referrals to the Jirapa district hospital. The resulting consequence is overcrowding, long waiting periods and delay in treatments. This finding is consistent with results obtained from the survey in which perception of overcrowding was higher among urban participants.

In Jirapa town, users were dissatisfied with amount of time they spent waiting to see doctor at the district hospital. A dropped out interviewee said:

“Going to the hospital is a waste of time for me...I just go to drugs store and tell them my problem and they get me the drugs I need, time is money.”

Another urban resident who has never joined the NHIS explained the reason for her decision:

“The hospital is always crowded with patients and if you (client) are paying cash they will treat you quickly and you go away. You don’t need to be in the queue. I think the scheme is good (for the poor) but there is too much time wasting when you go with insurance card, and I don’t have time to waste so when I feel sick I would normally go to the drugs store first, and if I don’t get well I then go to hospital and just pay cash for my treatment.”

These views about overcrowding in facilities have similarly been reported in previous studies (Atinga et al., 2015, Atinga, 2012b, Macha et al., 2012, Akazili, 2010).

One reason frequently cited as the cause of overcrowding in facilities in recent years is the introduction of the NHIS. As alluded to by health care providers as well as the officials of the NHIS, but also in the literature (Schieber et al., 2012b, Jehu-Appiah et al., 2011b, Apoya and Marriott, 2011, Durairaj et al., 2010a), the introduction of the NHIS has caused an increase in facility visits. Unfortunately however, there has not been a commensurate increase in the number of health facilities and personnel. The disequilibrium between increased demand for care and limited availability of personnel is blamed for of delays in service delivery, resulting in dropout among well-to-do groups in Jirapa town. This finding is consistent with previous research in which it is argued that the incommensurate relationship between demand for care and the limited supply of personnel is causing dropout from scheme (Atinga et al., 2015, Jehu-Appiah et al., 2011b, Witter and Garshong, 2009c). Dropout has negative implications on the scheme’s short term financial implications as well as the overall its objective of achieving universal coverage.

A district official of the NHIS also expressed concern about the lack of personnel in the health facilities when asked about the quality of care provided

at the facilities. He was of the view that every sub-district would need a medical doctor in order to provide satisfactory services to clients. He conceded however that, even the district hospital does not have enough doctors and the health centres are without the desired number of midwives and medical assistants to provide high level care to rural dwellers. He agreed with the view that availability of personnel influences households' enrolment decision. Unlike in regional capitals and some rich districts, most rural districts like Jirapa district do not have private hospitals or clinics to soak up some of the pressure of demand for health care at the district hospital. But he concurred with the view of providers that the introduction of the NHIS has led to an increase in the number of people visiting health facilities at the same time, and without a commensurate increase in the number of personnel the pressure of workload on the limited staff affects the quality of care that is provided.

Even more troubling is the skewed distribution of health personnel in favour of urban areas. The further away one moves from Jirapa (which is the centre of the district), to the sub-districts and further into the rural areas, the less the availability of high level personnel in health facilities. According to the 2012 district health annual report there was only one General Practitioner at the Jirapa district hospital. This makes the doctor-patient ratio in the district 1: 45,897 (far below the national average of 1: 10,034) (GSS, 2012). Additionally, there is no specialist physician, and the number of patients seeking care far outweighs the nurses and midwives available to provide services. This situation leads to overcrowding and delays access to treatment in the Jirapa district hospital (see figure 6.2.6.3 which shows a long queue of clients waiting for care in the OPD at the Jirapa hospital).

Figure 7.3.3.1: A long queue of patients waiting at the OPD to receive care – Jirapa District Hospital



Source: Field survey (2013)

It has to be said here that overcrowding was observed at the district hospital and not at any of the rural health centres I visited.

I saw in maternity ward 'A', a crowd of pregnant women and mothers and their new babies waiting to receive antenatal and postnatal care respectively. The crowd confirmed the huge amount of workload that midwives have on their shoulders. In an interview a midwife lamented how the introduction of the NHIS has increased their workload. She said:

“Because of NHIS free maternal care men are just impregnating their wives anyhow and our workload has become too much work these days. Apart from my clinical duties I also now do paper work and yet the no additional allowance is paid for the extra work I do.”

This observation was supported with statistical evidence from the district health secretariat and the district NHIS which shows that antenatal and postnatal visits have been on the rise since the launch of the scheme and this has led to a reduction in maternal and infant deaths over this period. Evidence of increases in maternal and antenatal care that has come as a result of the introduction of NHIS has been reported many times (MoH, 2014, NHIA, 2013c, NHIA, 2012b, Schieber et al., 2012b, Jehu-Appiah et al., 2011b, Durairaj et al., 2010a). What seems to be needed to address overcrowding in hospitals is extra personnel in the form of Medical Assistants and Midwives to work in sub-districts.

Surprisingly however, overcrowding and delays was not a common feature at the sub-district health level as it was at the district hospital. Users and providers indicated that, apart from village market days (which come once a week), facilities did not receive too many clients seeking treatment. The main operational challenge they face is the lack of Midwives and Medical Assistants. Although these health centres were well staffed with enrolled and community health nurses, three out of the four sub-districts I studied lacked midwives and medical assistants; Duori had a physician assistant but did not have a midwife. Yaga and Tuggo neither had a midwife nor a physician assistant. In the absence of midwife or a physician assistant certain cases must be referred to the district hospital. According to the deputy District Director of Health Services the number of patients referred from health centres and CHPs to the hospital has gone up in recent times mostly because these facilities do not have

qualified midwives and physician assistants to provide the desired level of care. Yaga and Tuggo are known to have high rates of referral of pregnancies to the district hospital because of the lack of midwives in these facilities. The shortage of health personnel at the primary level not only widens the geographic gap in access to care but also contributes to overcrowding, delays and the provision of poor quality of care to clients at the district hospital.

“If we can get in every health centre a Medical Assistant and a Midwife, referrals to the district hospital will reduce remarkably because a lot of patients come here because the nurse in charge is not qualified to prescribe the drugs they need,” Public Nursing Officer observed.

7.3.3.2 Availability of dispensary services

Since the district does not have a NHIS accredited pharmacy the focus was limited to the availability and functioning of health facilities’ dispensaries. The results were mixed; aside from one enrolled participant who thought that the nurses were diverting the drugs for their private advantage there was a general consensus among users and providers in rural areas that most prescribed drugs are available in the rural health facilities. They however conceded that the hospital dispensary runs short of certain drugs quite frequently. Not surprisingly, urban participants complained about the shortage of drugs in health centres and the district hospital dispensary, requiring of them to pay out of pocket for drugs in private pharmacies. The result contradicts the survey results in which most urban residents seemed satisfied with dispensary services provided at the district hospital. The shortage of essential drugs in Ghanaian health facilities is well documented (Atinga, 2012b, Macha et al., 2012, Apoya and Marriott, 2011, Gobah and Liang, 2011a). In the normal order of things, the NHIS would have an accredited private pharmacy where members of the NHIS can access drugs

free of charge when the health facility does not have them in stock. Unfortunately, however, because the district does not have an accredited pharmacy to provide this service NHIS clients pay out of pocket for prescribed drugs that are out of stock in the health facility. As indicated earlier, some urban residents have discontinued their membership of scheme as a result of failure on the part of the scheme to provide the full range services in the benefits package, with the frequent shortage of drugs being a typical example. For rural residents, although the shortage of drugs in health centre is not a frequent occurrence they face an even more difficult challenge when they are required to buy drugs outside the health facility. The reason being that there are no drug stores in these villages. The nearest place to buy prescribed drugs was in Jirapa town; which is far away from many villages in the district. It is unclear whether rural residents would drop out of the scheme because they have to occasionally buy drugs from private pharmacies, what is certain however, is that the costs of drugs and transportation to Jirapa could be a negative influence on enrolment in the scheme.

7.3.3.3 Accessibility of laboratory services

Similar to dispensary services, the analysis of laboratory service adequacy varied between urban and rural areas. For urban residents accessing the medical laboratory was mostly convenient. They also perceive laboratory services to be adequate and effective. On the contrary however, rural residents perceive it to be inadequate or ineffective. This result was expected because aside from the Jirapa district hospital that has a medical laboratory none of the rural health facility in the district has a laboratory attached. These facilities are only able to do basic test for malaria, HIV, pregnancy etc. Thus, for the rural public with disease conditions that require laboratory tests they would

have to spend more on transportation to have their test done in the laboratory in Jirapa. This contradicts the equity objective of the NHIS; to ensure that every Ghanaian resident has equitable access to basic health care at the time of need. That aside, high volumes of referrals to one medical laboratory also has the danger creating longer queues and delay in laboratory services provision in the entire district.

7.3.4 Perceptions of acceptability of health facility services

The attitudes of providers towards clients was the core issue for consideration under this dimension of access to health care. As highlighted in the literature, perceptions of the user-friendliness of health care services influences the degree to which services are utilised. But it is also important to recognise that these perceptions may vary between urban and areas as a result of differences in beliefs about health care. The results that follow focus on the quality of care, mainly on perceptions of the attitudes of providers to clients and whether these varied between urban and rural areas.

7.3.4.1 Attitude of providers

The analyses also revealed some interesting disparity in participants' perceptions of the quality of care given at the various different levels of health care provision. From the perspective of rural residents, service provision at the health centres was mostly satisfactory; they described the attitudes of nurses in these lower level facilities as friendly. While these participants also perceived the time spent at facilities to be satisfactory, they often received all the care they needed in a satisfactory way. When asked whether she was satisfied with the quality of health care provision in the health centre, an enrolled rural resident had this to say:

“The nurses are very friendly and they give me all the attention I need. So I am satisfied with the quality of care served in this facility (Yaga Health Centre).”

Although they were unable to establish the number of minutes they would normally spend waiting to be seen by a medical staff, the absence of long queues of clients waiting for services during my visits to health centres may suggest that clients did not wait too long to receive treatment.

In contrast however, nurses working in the district hospital were described as unfriendly and intolerant. Poor attitude of nurses has been known to discourage the use of health facilities (Mills et al., 2012b, Macha et al., 2012, Jehu-Appiah et al., 2011b, Bruce et al., 2008, Gilson et al., 2007). Patients from rural places in particular refuse to accept referral to the Jirapa District Hospital. In an interview, a mother of six children talked about a humiliation she endured from a midwife at the Jirapa district hospital:

“She (midwife) said I was untidy and unprepared for delivery because I did not have all the necessary confinement items while on admission for delivery.”

After that experience she has never felt comfortable visiting the Jirapa hospital again. In her view the health centres offer better quality care than the Jirapa district hospital.

“The nurses here (Tuggo health centre) are very pleasant and nice to us. They treat us like their own sisters and that is the reason we enjoy coming here for treatment,” she added.

Surprisingly, all the four sub-district heads interviewed confirmed that some nurses and midwives have poor attitudes towards patients and this had been brought to their attention. They had received several complaints from clients about poor attitudes of nurses at the district hospital, and as a consequence

some patients, especially pregnant women no longer want to be referred to Jirapa hospital for treatment even when their condition is critical. According to a Medical Assistant at the Douri health Centre, pregnant women referred from health centres are the most victims of abuse by hospital nurses:

“They are often lambasted for coming into the hospital for delivery without the necessary confinement items. But I think it is wrong on their (midwives) part to expect so much from these poor women. They can’t afford all of these confinement items, and so here, we don’t put pressure on them. We just make do with any clean clothes they manage to bring along with them.”

At the Tuggo health centre, a nurse had this to say about their colleagues at the Jirapa hospital:

“Some of my colleagues in Jirapa are really horrible. I once referred an expecting mother to the hospital and you wouldn’t believe me but she went down on her knees begging me not to send her to those heartless midwives again. She had a good point because in her last visit, which was a caesarean section, the midwives were not friendly to her all and that is why she does not want to go there (hospital) again.”

At the Yaga health centre, the nurse interviewed shared the view that some pregnant women do not want to be referred to Jirapa. There is a negative impression among rural women about the attitude of nurses working in the hospital, fuelling widespread perceptions that the hospital is not user-friendly, particularly to rural residents: *“some would reject the referral and rather go and visit the TBA in the community.”* These observations resonate well with a quotation in chapter 6, sub section 6.2.9 in which a pregnant women testified to receiving harsh treatment from midwives in the hospital because she did not have the necessary confinement items.

The analysis shows that the issue of unfriendly service provision has more to do with the poor attitude of midwives towards pregnant women referred from rural Health Centres. For this reason, I interviewed a senior midwife at the Jirapa hospital for her perspective on the issue. In her view, midwives at the hospital are not as unfriendly as portrayed:

“We are just victims of a poorly organised health system. There are too many clients to attend to at a time but we are not machines and so we get tired. Sometimes we over react towards them (pregnant women), but this whole problem (overcrowding) is caused by the NHIS. We never used to have a large crowd until this scheme was introduced. Now maternal and infant care is free and as such women are getting pregnant indiscriminately and yet the number of midwives has not increased to handle the increase in facility visits.” She added that; *“because there are no qualified staff at the sub sub-districts many patients are referred here and the workload is just too much and we don’t get extra allowances for it.”*

This extract is consistent with Macha et al. (2012:i52) research finding in which providers and managers in Ghana linked the negative attitude of nurses and unacceptable patient-provider relations to ‘heavy workloads, staff shortages and lack of resources’. When asked whether a decrease in a number of TBAs in the district was a contributory factor, she said:

“No, I think it is the free maternal care and the fact that we do not have enough qualified staff in the district. They need to train more health personnel and if all the sub-districts are well staffed this problem will go away naturally.”

Although there is need for improved attitude towards clients, her recommendation was spot on because inadequate staffing seems to be the main factor crippling not only the functioning of the health care delivery system but it also slows down the NHIS objective of expanding coverage to the poor in

particular. While utilization of care has gone up significantly there has not been an increase in facilities and personnel to meet the demand for care. To some extent therefore, the poor attitude of midwives could be associated with the overwhelming workload on their shoulders. The shortage of health personnel in Ghana is not a secret, but it emerged from the interviews that health personnel are refusing postings to rural areas. Until a workable solution is found to the staffing problem in the health sector health care benefits such as access to user-friendly care in higher facilities may never come the way of rural residents. Yet, at the same time, providers working in urban hospitals need to come to terms with the expectations of the variety of health care users they are serving in order to be able to meet these diverse expectations.

These responses were consistent with the survey results in which the majority of participants were satisfied with the overall quality of care given in health facilities. From the perspective of rural residents, therefore, the attitude of nurses in rural health centres does not seem to stop them from enrolling in the NHIS given their desire to visit health centres based on a positive perception of the attitude of nurses. On the contrary, urban participants seemed satisfied with the attitude of providers but perceived the technical quality of care to be poor in quality. It requires therefore that, attention is paid toward improving the attitudes of nurses in urban areas like the Jirapa hospital to enable them to provide services that meet the expectations of the variety of users they serve. This is important because the expectations of these users vary on the basis of location, socioeconomic status, as well as health beliefs.

7.4 Summary of the section

Starting with geographic accessibility of health care, the results have shown that the location of health facilities was mostly convenient to urban residents. For rural residents, traveling to the Jirapa district hospital is a barrier to access. And although most rural participants did not consider distance to be a serious barrier nurses in rural areas argued that because of distance patients prefer to visit health centres and clinics as a last resort. Additionally, the disperse distribution of the population coupled with poor resourcing of facilities limits outreach services. This deprives some rural residents of the much needed prompt care. It is no surprise that some pregnant women resort to TBA care when they fail to get care from health facility.

Affordability of health facility services on the other hand looked at travel costs and costs of food and lodging while on admission in a health facility. In both areas rural residents are disadvantaged but travelling to Jirapa hospital for care is seen as their biggest distance related challenge. Rural participants perceived lorry fares or ambulance services to Jirapa to be high. And whereas they are charged a fee of GH¢21.00 (£4.2) to secure the service of an ambulance to transport a sick person to Jirapa, urban residents would hardly pay transport fares to access health care although they tend to have relatively better incomes. There is the need to improve access to transport services to rural areas otherwise the scheme's journey towards equitable access to basic health care would be long and frustrating.

The results on the availability of services ranged from staffing of facilities, availability of drugs and laboratory services. Overcrowding of health facilities in recent times has increased because of increased demand for care triggered by

the introduction of the NHIS. Failure to argument staff capacity to be handle increased demand for care created by the introduction of the NHIS has led to overcrowding at the district hospital. One the reasons for this is the shortage of midwives and medical assistants at health centres. This results in high volume of referrals to the Jirapa district hospital, leading to overcrowding, long waiting periods and delay in treatments. This finding is consistent with results obtained from the survey in which perception of overcrowding was higher among urban participants. In terms of dispensary services, the results were mixed and slightly contradict the survey results. There was a general consensus among users and providers in rural areas that most prescribed drugs are available in the rural health facilities. On the contrary however, the district hospital dispensary would frequently run short of certain drugs in the EDL. Having to pay out of pocket for drugs in private pharmacies could deter people from enrolling in the NHIS. Similar mixed results were obtained from in relation to laboratory services. Expectedly, while this service was very limited in rural health facilities, the Jirapa hospital has a standard hospital size laboratory that is accessible to urban residents.

Thus, apart from overcrowding that is typical of the Jirapa district hospital rural residents appear to be disadvantaged in almost all the dimensions of access to care. This finding is consistent with the findings of previous research in which inequitable urban-rural distribution of health resources makes access to care difficult to rural residents (Akazili et al., 2014, Macha et al., 2012, Mills et al., 2012b, Apoya and Marriott, 2011, Witter and Garshong, 2009c, Penchansky and Thomas, 1981, Peters et al., 2008). The objective of this research is to understand whether this inequity in health care impedes enrolment in the NHIS.

An interesting conclusion that can be drawn from the results is that, rural residents' perception of quality of care leans more in the direction of the social aspects of health care rather than the medical aspects; interviewees placed premium on the attitude of providers, the friendliness of the treatment procedures and how pleasant, tolerant and hospitable the nurses in the health centres have been to them. They observed that nurses working in rural health centres were meeting their expectations while some of their counterparts in the urban district hospital had not lived up expectations; they are unfriendly, harsh and intolerant, according to one participant. In contrast, urban residents appeared satisfied with the attitude of health workers but disliked the technical quality of care. They complained about the poor quality of drugs prescribed to NHIS ID card holders, the shortage of drugs in facilities coupled with the lack of an accredited pharmacy in the district which requires that clients pay out-of-pocket for drugs. Negative perceptions such as these may dissuade clients from enrolling and staying in the NHIS.

Chapter eight

8.0 Discussion of findings

8.1 Introduction

Ghana's National Health Insurance Scheme can best be described as an ambitious national experiment that enjoyed remarkable success in the early years of implementation. The scheme has diverse sources of funding, and appears to have made a significant progress in relation to increase in service utilization, which had declined swiftly under the previous "cash and carry" system. These achievements notwithstanding, there are challenges that put the scheme's transition to universal coverage in danger. For example, the scheme's failure to increase enrolment to 60 percent by the year 2015 as planned, is an indication that implementation has not been as smooth as anticipated. In general, there are barriers to access to health care, but rural residents appear to carry a disproportionately high burden compared to urban residents.

This final chapter represents the substantive integrative element of the thesis. It pulls together the findings, and highlights three important contributions of the thesis to the debate on the equity challenges of implementing the National Health Insurance Scheme under Ghana's health delivery system. It also reflects on the limitations of the thesis and puts forward suggestions for future research. The chapter is divided into three main sections to reflect the three research objectives of the study as follows:

4. Firstly, how does the cost of enrolling and accessing health care under the National Health Insurance Scheme vary between urban and rural areas in the Jirapa district?

5. Secondly, are the benefits of the National Health Insurance Scheme distributed equitably among urban and rural residents?
6. Thirdly, do perceptions of the quality of care under the NHIS differ in relation to locality in the district?

8.1.1 Contribution to literature

The study makes an important contribution to the debate on the determinants of access to health services in a resource-poor district context. It highlights differences in determinants of enrolment and uptake barriers between urban and rural areas. Firstly, it argues that the cost of enrolling and accessing health care is disproportionately more for rural residents than it is for urban residents. This is in relation to costs incurred as a result of transportation to Jirapa for enrolment, and costs of food and lodging when admitted in the Jirapa hospital. These extra expenses, coupled with perceptions of high cost of NHIS premiums and registrations fees, poor timing of collection of contributions from rural households, adds up in making health services unaffordable to the majority of people resident in remote villages. Previous studies have examined affordability of NHIS premiums and/or health care mostly from the perspective of socioeconomic status, not on the basis of locality as this study has done.

This study also demonstrates that the distribution of service benefits both in terms of the NHIS and health care in the Jirapa district favours urban residents. The NHIS office and the district hospital are both located in Jirapa town close to urban dwellers. Additionally, the distribution of health personnel is skewed in favour of Jirapa while rural health centres are starved of higher cadre health professionals. This leads to high volumes of referrals to the district hospital, causing overcrowding, and longer waiting times. Earlier studies that examined

the distribution of the benefits of health services under the NHIS did so again from a rich-poor perspective, not on the basis of location, as found in this study.

The final contribution of this study is in relation to differences in perceptions of the quality of care between rural and urban residents. Whereas rural residents prefer health care provision to be social in nature, urban residents were interested in the technical aspects of care they received from health facilities. This is not only an interesting finding, but it is an area that has not been researched in the specific context of the NHIS.

The findings suggest that rural residents are not benefitting from, or may not be accessing health services to the extent as their urban counterparts. Affordability, long distance to health facilities, availability and acceptability barriers were found to influence the resultant pro-urban distribution of the overall health care benefit. The ensuing segments of this final chapter discusses these determinants and barriers and how they vary between urban and rural areas in the district.

8.2 Affordability as an important determinant of access

Affordability emerged as an important determinant of enrolment and uptake of health care, but also the dimension of access that rural residents are most disproportionately deprived. This is an important finding as it suggests that efforts to improve enrolment and uptake of health care in rural areas should focus on this important dimension of access to health care services. This finding is consistent with previous research that refers to affordability as a key determinant of access (Atinga, 2012a, Atinga et al., 2015, Dong et al., 2009, Carrin, 2003, Macha et al., 2012, McIntyre et al., 2009, Akazili, 2010, Akazili et al., 2012, Akazili et al., 2011b, Akazili et al., 2014, Witter and Garshong, 2009c,

Carrin and James, 2005, Peters et al., 2008, Aday and Andersen, 1974b, Aday and Andersen, 1981, De Allegri et al., 2006b, Alfers, 2013, Chankova et al., 2008, Basaza et al., 2008). Although most participants (59.3%) who joined the scheme have a strong perception that it provides financial protection against the cost of illness, affordability emerged in this study as the strongest barrier to access, of which rural residents are disproportionately affected. This was in relation to high cost of NHIS premiums and registration fees, timing of collection of contributions, high costs associated with transportation, and admission related maintenance costs. Irrespective of locality the majority of survey participants (71.1%) perceived current premiums to be unaffordable. In specific terms however, while an overwhelming 96.7 percent of never enrolled group perceived the premiums to be unaffordable, 76.6 percent of them cited unaffordable premiums as the reason they never enrolled in the scheme. Similarly, whereas 78.3 percent of the previously enrolled group perceived the premiums to be unaffordable, 51.1 percent of them dropped out of the NHIS because they could not afford to pay the membership renewal fees. Further evidence of participants' inability to pay premiums is shown in the regression analysis in which, compared to the participants currently enrolled, previously enrolled participants had a negative association with wealth. The inability to renew their membership of the scheme may be associated with poverty, as the main livelihood activity of residents is seasonal subsistence crop farming (GSS, 2012, GSS, 2014, GSS, 2015).

Although data on socio economic status was not collected in order to adequately establish variations in household incomes between urban and rural areas, a helpful feature of the regression analysis is the finding that being in the

rural area compared to respondents in the urban area had a significant negative influence on wealth. This is consistent with the GLSS' round of surveys which observed that poverty is not only disproportionately a rural phenomenon, but it is also found to be highest among rural crop farming households (GSS, 2015, GSS, 2007). The disproportionate share and phenomenal nature of poverty in rural areas makes the scheme's decision to charge flat rate premiums to people outside the formal sector unfair. Flat rate contributions contradict the legal requirement (Act 852, section 28) that informal sector contributions be graduated according to income (NHIA, 2012d). It is a fact that the lack of information on households' income and expenditure pattern makes it difficult to accurately determine income levels of those in the informal sector to adequately implement the graduated premium. From a vertical equity perspective however, it must be pointed out that flat rate contributions by those in the informal sector are regressive and inequitable (Akazili et al., 2012, Mills et al., 2012b, Apoya and Marriott, 2011, Witter and Garshong, 2009c, Ansah et al., 2009, Asante and Aikins, 2008, Dixon et al., 2011, Amporfu, 2013b, Atinga et al., 2015, Akazili et al., 2011b, Macha et al., 2012, Akazili et al., 2014, Carrin, 2003, Jehu-Appiah et al., 2011a, Jehu-Appiah et al., 2011c), and the rural public are hit the hardest because the majority of them are informal sector peasant crop farmers (GSS, 2007, GSS, 2014, GSS, 2015). Considering that the average household size in the district is 6.3 persons (GSS, 2014), the average costs of premiums per household per annum may not be affordable to a considerable number of subsistence crop farming households. The Jirapa district scheme, like other schemes in the Upper West region charges Gh¢10.00 (£2.50) as membership fee and Gh¢2.00 (less than one pound) as registration fee for new subscribers. Although these fees may look affordable on individual basis (a view held by

officials of the scheme, who expect households to save towards NHIS contributions), the findings of this thesis suggest that many households in the district are not able to pay the contributions either because of poverty or because the timing of collection of premiums was wrong. Given that disproportionately a rural phenomenon (GSS, 2015), and over 70 percent of the population is made up of poor crop farmers, flexible modes of payment and exemption reforms might lead to improved equity in health care.

The narrative above corroborate previous research findings (Atinga et al., 2015, Dixon et al., 2014b, Amporfu, 2013a, Akazili et al., 2014, Akazili, 2010, Akazili et al., 2012, Akazili et al., 2011b, Macha et al., 2012, Mills et al., 2012b, Jehu-Appiah et al., 2011c, Witter, 2009, Jehu-Appiah et al., 2011a) that the regressive and inequitable flat rate premium payment is largely responsible for none enrolment among low income households, the majority of whom reside in rural areas (GSS, 2012, GSS, 2014, GSS, 2015). It has to be reiterated that the main reason for the introduction of the NHIS was in recognition that user fees created a barrier to health service access. To extend coverage to the core poor, exemptions and waivers were advocated and implemented to reduce the burden of OOP payments. It is obvious however, that the implementation of the exemption for indigents has not been impressive due to implementation gaps such as lack of clarity in policy strategy and the difficulty of appropriately assessing eligibility. The qualitative analysis uncovered that the criteria for identifying indigents was too stringent and the scheme's definition of indigent is so restrictive and relies on a general means testing criteria that exclude indigents in typical Ghanaian rural communities. The finding on the exclusion of indigents from the NHIS in the district corroborates earlier observations that the

scheme's stringent definition of indigents has excluded a large proportion of the poor from the NHIS (Schieber et al., 2012b, Apoya and Marriott, 2011, Averill and Marriott, 2013a, Witter and Garshong, 2009c, Witter, 2009, McIntyre et al., 2005, Amporfu, 2013a, Borghi, 2011, Akazili et al., 2011b). Future reforms will require a redefinition of the indigent; one that gives village level committees more discretionary power in the selection process. It is clear that the current definition focusses narrowly on characteristics of the urban poor such as the lack of shelter without recognizing that the lack of shelter is not an indicator of extreme poverty in Ghanaian rural communities. I know this very well because I come from a rural place in Ghana and I am very certain that no matter how poor a person is, they always have relatives around and these relatives will make it a point to provide them with shelter. These relatives may however, not be financially capable of paying NHIS contributions for them as most households in rural places struggle to make ends meet. The NHIS financing arrangements are supposed to be equitable and pro-poor, but the current operation of the scheme means that they are not (Akazili et al., 2011b, Witter and Garshong, 2009c).

The timing of collection of contributions also emerged as being largely inconvenient to rural residents than it is to their urban counterparts. Although a few studies (Wipf et al., 2006, Carrin, 2003, Owusu et al., 2009, Cohen and Sebstad, 2006) have looked at timing of collecting of contributions for socio economic groups and came to the conclusion that payment of contribution needs to be scheduled to correspond with periods when the households have surplus income, to the best of my knowledge no studies have specifically examined the urban-rural differences in preferences of the timing of collection of NHIS contributions. The differences in livelihoods and sources of income

between these localities call for appropriate timing and scheduling of payment of contributions in order to minimize lapses, and maximize enrolment and renewals. It has been observed that the timing of collection of contribution is likely to affect enrolment in health insurance schemes which is why it is advisable for schemes to design suitable payment schedules that take into consideration the nature, timing and income sources of households (Carrin, 2003, Wipf et al., 2006, Cohen and Sebstad, 2006). As a general rule of thumb, the best time to collect contributions is when users have cash, for example at harvest time, or when they receive a loan or a government cash transfer (Wipf et al., 2006). Although districts schemes are supposed to have different registration periods; major and minor seasons, with the major season set to coincide with agricultural cycles (Owusu et al., 2009), the Jirapa district, like other districts in the Upper west region operates an open registration throughout the year. However, given that over 70.8 percent of the population of Jirapa district is employed in seasonal agriculture (GSS, 2014), a suitable scheduling for the payments of contributions that coincides with their harvest time might be the way forward. For other informal sector workers, flexible payment options such as monthly, quarterly, semi-annual and annual payment options may be preferred by different segments of the population. At the same time that payment schedules are being established to accommodate the convenience of various segments of the population, it is also important that NHIS Agents are properly incentivised to pay regular visits to rural places in particular to collect their contributions. However, while reforms may be necessary to make timing of collection of premiums friendly to seasonal income earning households, there appears to be an ardent need for a change of attitude on the part of households to make payment for health insurance top of their expenditure priorities.

The consequence of unaffordable premiums and poor timing for collection of premiums has been found to result in adverse selection by poor households. Limited household resources accompanied by large household size makes enrolling every member of the household financially difficult to many households. As a coping strategy therefore, families would resort to enrolling those members of the family with high risk profiles. The qualitative analysis shows a trend in which women and children were enrolled in the scheme while the males of the same household abstained to avoid catastrophic spending. Others would renew their membership only when they were sick and needed to visit a health facility. This finding is consistent with earlier studies which show that out-of-pocket payments or user fees led to decreased utilization of health services (ILO, 2008a, Berkhout and Oostingh, 2008, Jehu-Appiah et al., 2011c, Asenso-Okyere et al., 1997, Agyepong and Adjei, 2008, Asante and Aikins, 2007, Asgary et al., 2004, Gobah and Liang, 2011b, Mensah et al., 2009, Peters et al., 2008, Borghi, 2011). Other studies have argued that the presence of adverse selection in the NHIS is due to the fact that health insurance premiums paid by households are not risk rated, and therefore, people with higher health risk have a higher incentive to enrol in the scheme (Amponsah, 2013, Rajkotia, 2007, Rajkotia, 2009). In voluntary health insurance it makes sense that high risk individuals are more likely to buy insurance than low risk individuals (Amponsah, 2013, McIntyre et al., 2005, Rajkotia, 2007, Rajkotia, 2009, Cutler and Zeckhauser, 1998, Zeckhauser, 1998, Sloan, 1992, Neudeck and Podczech, 1996). However, this study found in the context of the NHIS (which has become de facto voluntary) that unaffordable premiums was the main cause of adverse selection. For most rural households interviewed, paying

NHIS premiums for the entire household would result in catastrophic or distressed spending. This was also found in previous studies (ILO, 2008a, ILO., 2005, McIntyre et al., 2006, Barrientos and Hulme, 2010b, Conway et al., 2000, Kusi et al., 2015a, Kusi et al., 2015b, WHO, 2010a, WHO, 2015c, Borghi, 2011, Abihiro and De Allegri, 2015). However, the difference in findings could be down to difference in study settings as well as the type of health insurance model under consideration. These studies looked at adverse selection from the perspective of a competitive insurance market (mostly private insurance), as opposed to the pro-poor national health insurance scheme studied for this thesis.

The more important question for policymakers is whether the factors creating adverse selection could be removed to meet the pro-poor objectives of the NHIS. This study has shown that there has been an increase in access to maternal health care and outpatient health services in particular. However, whereas women and children seem to be the main beneficiaries of this increase, men, who cannot afford the premiums are being left out. This calls for new measures with a focus on revising the criteria for implementing exemptions based on ability to pay as outlined in the legal framework (Akazili et al., 2011b, Schieber et al., 2012b, Witter and Garshong, 2009c). An egalitarian view (Wagstaff et al., 1989, Culyer et al., 1981, Donaldson et al., 2005) being advocated by left-wing Non-Governmental Organizations such as Oxfam is the provision of free access to health care for every individual at the point of use. They argue that given the difficulty in identifying the poor to benefit from exemptions the NHIS needs to abolish the payment of premiums and make primary health care free for all at the point of use (Apoya and Marriott, 2011,

Averill and Marriott, 2013b). More importantly, this view is in line with International Covenants and Treaties such as the “Right to Health” (UN/WHO, 2007) and the “convention on the Elimination of all forms of discrimination against women” (UN, 1979). The concept of UHC has been argued to mean the existence of a legal framework to ensure that every resident has access to affordable health care (Stuckler et al., 2010, Scheil-Adlung and Bonnet, 2011, Bárcena, 2014, WHO, 2005a, WHO, 2005c, WHO, 2013a, WHO, 2015c, UN/WHO, 2007). This also reflects the image of the “*health for all*” goal of the Alma-Ata Declaration (Stuckler et al., 2010, Averill and Marriott, 2013a, Forman et al., 2013), which requires that states ratified the convention on the “right to health” to create legal entitlements to health care for all their residents (Bárcena, 2014, Kingston et al., 2010a, Yamin and Frisancho, 2015).

The desirability of UHC in the context of the NHIS is unquestionable, yet care must be taken in carrying out this objective to avoid creating a situation where free access to health care will be offered to all residents even when the existing health system does not have the capacity to meet the health demands of the population (Hickey and Du Toit, 2007, Abihiro et al., 2014, Devereux and Sabates-Wheeler, 2007). A practice Hickey and Du Toit (2007) described as adverse incorporation or inclusion. The right to health for all debate has fiscal space implications in LMICs in which the level of government revenue remains relatively low (McIntyre and Meheus, 2014, Borghi et al., 2013, Schieber et al., 2012b, Saleh, 2012). To avoid adverse incorporation or inclusion therefore, McIntyre and Meheus (2014) have advised that LMICs pay more attention to revenue generation by broadening the tax base and maximizing government revenue from minerals and other natural resources.

8.3 Skewed distribution of health resources

8.3.1 Limited and skewed distribution of health facilities

Health facilities are thinly spread in rural areas of developing countries (Peters et al., 2008), and this is the situation for rural areas in the Jirapa district. The findings of this study go on to demonstrate that residents of Jirapa town find the location of the NHIS office, health facilities and drugs stores conveniently accessible. On the contrary however, most rural residents find the distance to Jirapa hospital for the same services to be inconvenient. The reason is that most villagers will travel more than 5 kilometres to Jirapa to access services. This is consistent with a finding in previous research in which, compared to rural residents, geographical distance was less of a barrier to access to maternal health care and subsequent determinant of health outcomes to urban residents (Mathews et al., 2010). Interestingly however, there was a disagreement in relation to the convenience of the distance to district health centres and how it affects use. Most rural residents (with the exception of pregnant women), described sub-district health centres as being conveniently accessible (within a walking distance). During in-depth interviews, however, nurses attributed delays in seeking treatment, preference for traditional medicine and deliveries conducted by TBAs to long distance to health centres. From personal observation during the field work, most villages in the district are more than 5 kilometres from the nearest sub-district health centres, and would not be easily accessible, contrary to suggestions by some users. The presence of Community-based Health Planning Services (CHPS) in a few of these villages was meant to bring health services closer and accessible to rural residents. It must be mentioned however that the expansion of CHPS has been slow relative to plan, leaving most rural villages still having to cover more than 5 kilometres to

access health care (Apoya and Marriott, 2011, Akazili et al., 2012). Besides, only preventive services provided in the CHPS compounds are free (Akazili et al., 2012).

Earlier studies in Ghana also found that distance to health facilities and the area of residence of clients are key in determining health care access and use (Thiede et al., 2007, Akazili et al., 2012, Macha et al., 2012, Mensah et al., 2010, Mills et al., 2012b, Owusu, 2005). As discussed earlier in this chapter, travelling to the district hospital in Jirapa and the NHIS office, has both direct and indirect cost implications for villagers. These costs are increased by the lack of public transport in some areas and by poor roads. This constitutes a barrier to access not to residents of urban Jirapa, but to rural villagers who live considerable distances away from Jirapa town. It reinforces the notion established in previous studies that the provision of health care in developing countries does not reflect the health care needs of rural populations (Peters et al., 2008, Aday and Andersen, 1974b, Aday and Andersen, 1981, Macha et al., 2012, Jacobs et al., 2012, Carrin, 2003).

8.3.2 Inequitable distribution of health personnel

While scaling up health infrastructure development is important in improving access to health care, inadequate availability of higher cadre staff in primary health care facilities in the district is another important barrier to health care access. This was also found in previous studies in Ghana (Macha et al., 2012, Mills et al., 2012b, Akazili et al., 2012, Witter et al., 2007, Schieber et al., 2012b, Mensah et al., 2010). The limited availability of personnel is compounded by equitable distribution of higher cadre health professionals. The distribution is

skewed in favour of Jirapa town, which happens to be the only urban community in the district. It was observed that, whereas the Jirapa Urban Health Centre was well staffed with a Medical Assistant and two Midwives, none of the other three sub-districts had a midwife. Again, while neither Yaga nor Tuggo had a Medical Assistant to make basic medical decisions, Douri sub-district, which is closer to Jirapa had one Medical Assistant. The absence of high cadre health professionals at sub-district health centres has serious implications for the quality of care provided in the district. This situation appears to have a knock-on effect on the overall quality of care provided at the district hospital. The reason being that, the absence of senior staff in rural health facilities means that Community Health Nurses who do not have the competence to treat certain illnesses aside from the limited protocols accorded them, would frequently refer clients to the district hospital for attention. Many referrals could be avoided if primary care facilities were adequately staffed to treat health problems at the health centre level. Unfortunately, because the Jirapa district hospital also lacks the required manpower, especially doctors (district doctor-population ratio being 1:88,402) to handle the high volume of referrals from understaffed rural health centres the delivery of health care services is impeded resulting in growing dissatisfaction with the quality of care. In fact, the most cited reason why urban participants dropped out of the NHIS was dissatisfaction with the quality of care in the Jirapa district hospital. They cited non availability of doctors to provide immediate care, ineffective treatment and cure, frequent shortage of drugs and the need to buy drugs in private chemists' shops as reason they discontinued their membership of the scheme. Whereas in previous studies, opening hours, long queues and long waiting hours in health care facilities have also been found to act as access barriers

(Atinga et al., 2015, Atinga, 2012a, Akazili et al., 2012, Macha et al., 2012, Mills et al., 2012b, Jehu-Appiah et al., 2011c, Gilson and Schneider, 2007, WHO, 2008b, Peters et al., 2008, Jacobs et al., 2012, McIntyre et al., 2009), an important finding of this study is the disparity that, whereas well-to-do insured urban residents are self-selecting of the scheme due to perceive poor quality of care, most rural residents selected out as a result of unaffordable premiums or poor timing of the collection of premiums.

This seemed to be the trend throughout the country as the annual health reports showed that well-endowed regions such as Greater Accra and Ashanti, which also had the highest number of private facilities back in 2010 (GHS, 2010) recorded low enrolment coverage in recent years (NHIA, 2012b, NHIA, 2011). This trend of events poses an important financial challenge that affect rural residents the most; increase in dropout rate also means a drop in processing fees collected for the day to day office running of district schemes. And in a poor rural district like Jirapa where about 72 percent of the scheme's active members are exempt from paying premiums, without the much needed processing fees accruing from premiums paid by contributors (those who can afford) the scheme has struggled to extend services to some deprived communities. The reason being that Community Agents had withdrawn their services because majority of subscribers in the district were in the exempt group, and the scheme does not pay commission for services rendered to this group, obviously because they do not pay any contributions to the scheme. This puts the scheme in a tricky situation because, without Community Agents to register and renew membership, enrolment would not only decline but the poor rural residents who cannot travel to Jirapa to enrol or renew their membership are in the end denied access to health care. In appreciating the fact that their

contributions are needed to fund the extension of services to the poor in deprived rural areas it becomes necessary to step up efforts at improving service quality to meet the expectations of well-to-do group to retain them in the scheme. At the same time, it is clear from practice that the decision to not pay Agents for services rendered to exempt members is not operable and the rural poor are made to suffer at the end, unfortunately.

Future reforms may aim to charge a reasonable administration fee for services provided by Community Agents irrespective of whether the recipient of the service belongs to the exempt group. Other possible options include the implementation of the onetime premium payment (Abihiro and McIntyre, 2013), and the possibility of abolishing premiums (Apoya and Marriott, 2011, Averill and Marriott, 2013b). The NHIS is currently going through review process and there is a proposal by the Review Committee chaired by Dr. Chris Atim, that the scheme be redesign to focus mainly on the provision of a compulsory free primary healthcare and maternal and child health care package for Ghanaians irrespective of whether they are members of the scheme or not, and also help address the current challenges of the NHIS system (NHIA, 2016b). This would remedy the challenges of enrolling and collecting premiums, and ultimately improve access to primary health care for all. Ultimately however, there is the need to improve government revenue generation in line with McIntyre and Meheus (2014) recommendations (see later).

8.3.3 Addressing the health resources challenge

The prospects of increasing resources for health seems to hinge hugely on the availability of funds; Ghana's fiscal space for health. The NHIS may have the funds to pay claims to providers, but has the Ministry of Health the funds to

upgrade and expand the supply network and make services available in underserved rural areas to meet the commitments in the NHIS benefits package? The financial sustainability of the scheme moving towards Universal Health Coverage has been a subject of considerable debate recently (Schieber et al., 2012b, Apoya and Marriott, 2011, Agyepong et al., 2011, Durairaj et al., 2010a, Witter and Garshong, 2009b, ILO, 2008a). There has been an ideological battle between the view egalitarian, led by OXFAM (Apoya and Marriott, 2011) and the libertarian perspective championed by the World Bank (Schieber et al., 2012b, Agyepong et al., 2011, Witter and Garshong, 2009b) in relation to how universal health coverage in Ghana should be financed. Whereas Oxfam is urging the government to implement a free National Health Service where every resident will have free access to basic health care when they need it (Apoya and Marriott, 2011, Averill and Marriott, 2013b)., Others (Schieber et al., 2012b, Agyepong et al., 2011, Durairaj et al., 2010a, Witter and Garshong, 2009b), are of the view that even the current financing arrangement is not sustainable in the long term, particularly that the benefits package is heavily biased toward curative care covering 95 percent of the burden of disease without cost sharing. The NHIA 2013 annual report (most recent) indicates that nationally, 70 percent of active members of the NHIS are exempted from premiums payment. In the Jirapa district, 72 percent those enrolled are exempted, and these figures raise further questions about the schemes financial sustainability.

Funding difficulties is associated with Ghana's relatively low level fiscal space for health, and according to experts, favourable macroeconomic conditions in the form of sustained economic growth, increased revenue generation, and low levels of fiscal deficits and debts are key sources of new fiscal space for any

sector of the economy (Schieber et al., 2012b, Barrientos and Hulme, 2010a, McIntyre and Meheus, 2014). Unfortunately however, the World Bank (WorldBank, 2015) indicates that Ghana's macroeconomic conditions have not been conducive in recent years. Annual GDP growth rate declined from 15 percent in 2011 to 4.7 percent in 2014, and was expected to decline further to 4.5 percent in 2015 in line with increases in inflation from 8.7 percent in 2011 to 11.6 percent in 2013. A similar trend is seen in fiscal deficit where Ghana's external debt endured an increase from US\$ 9,300,145,000 in 2010 to US\$ 15,831,510,000 in 2013. The resulting increase in debt servicing from 2.3 percent in 2011 to 5.6 percent in 2013 has had a negative impact on total public expenditure on health, which reduced from 12.5 percent in 2011 to 9.7 in 2012 (WHO, 2015b). A reduction in public health spending and frequent delays in reimbursing providers (Jehu-Appiah et al., 2011a), account for the poor quality of care in public facilities, which is the reason why middle and high-income earners who can pay for quality private care are selecting out of the NHIS. In the normal order of things, increases in utilization of health services caused by the implementation of the NHIS should be matched by commensurate increases in the number of health personnel and infrastructure. But because this has not happened (Schieber et al., 2012b, Apoya and Marriott, 2011, Jehu-Appiah et al., 2011a), the consequence is a health care delivery system that is not good enough to adequately support a smooth and sustainable transition of the NHIS to universal coverage.

8.4 Acceptability of services

Perceptions of the quality of health care strongly influence health insurance enrolment and access to health care (Gilson et al., 2007, McIntyre et al., 2009,

Penchansky and Thomas, 1981, Peters et al., 2008, Arhinful, 2003, Bruce et al., 2008, Carrin, 2003). An important finding that emerged from the study was the attitudes of health staff, along with perceived quality of care. This research found that perceptions relating to staff attitudes and quality of care vary between urban and rural areas. Whereas rural participants praised nurses in rural health centres for providing user-friendly care, it emerged that negative provider attitudes at the Jirapa hospital deterred pregnant women in rural villages from adhering to referrals at the facility. Although the scheme provides free health care to pregnant women (FMC), such negative perceptions may undermine enrolment and uptake of health care, which may affect patient well-being. The relationship between quality of care and enrolment and use of health care is well documented (Gilson et al., 2007, Macha et al., 2012, Mills et al., 2012b, Dong et al., 2009, De Allegri et al., 2006b, Jehu-Appiah et al., 2011a, Bruce et al., 2008, Mannava et al., 2015).

Interestingly however, it emerged from the qualitative interviews that the Free Maternal Care programme provided by the NHIS has increased the workload of midwives at the district hospital. Providers argued that the increase in utilization of services resulting from the introduction of the NHIS has not had a commensurate increase in the health personnel, particularly midwives. They attribute the nagging and unfriendly attitudes of midwives to tiredness resulting from excessive workload that comes without extra pay. It is a problem at the district hospital because most pregnant women no longer use TBAs services, but there is also a high volume of referrals from sub-district health centres to the district hospital, which caters for a population of 88,402 people and 13,911 households (GSS, 2014). Negative attitudes of midwives and unacceptable patient-provider relations attributed to heavy workloads, staff shortages and lack

of resources is consistent with previous research findings (Macha et al., 2012, Mannava et al., 2015, Jehu-Appiah et al., 2011a). Others have associated poor attitudes of providers to poor macroeconomic policies in low income country settings, that undermine salary levels and professional ethic, prompting abusive behaviour towards patients and breaking down patient trust in the healthcare system (Owusu, 2005, Streefland, 2005).

Contrary to provider attitudes, the qualitative interviews uncovered that urban residents were more interested in the technical quality of care and service delivery. Overcrowding at the district hospital, which result in long waiting periods, frequent shortage and poor quality of drugs prescribed under the NHIS, were among reasons some residents either dropped out or never enrolled in the scheme. Previous studies have shown the influence of quality of care on enrolment in health insurance schemes (Carrin, 2003, Gilson et al., 2007, Dong et al., 2009, De Allegri et al., 2006a, De Allegri et al., 2006b, Jehu-Appiah et al., 2011a, Basaza et al., 2008, Macha et al., 2012, Macha et al., 2014).

Although the quantitative results were not statistically significant, an important finding to take from this study is that rural residents appeared to appreciate more the social aspects of care; perceptions of acceptability of health care was highest among rural residents compared to urban residents. Perception of the friendliness of care, prompt service provision, the quality of drugs prescribed under the NHIS and overall quality of care received from health facilities was positively higher among rural residents. Given the differences in perceptions an expectation of what acceptable and quality health care is, addressing the acceptability barriers require the promotion of ethical practices by providers, which requires in turn, the development of organizational environments that

encourage good provider behaviour and promote health care provision that is responsive to patient circumstances. A multifaceted approach is needed, within which change in management practices and organizational culture have an important role (Gilson et al., 2007).

8.5 Conclusion and recommendations

This study concludes that the determinants and barriers to access to health services vary in relation to location, but rural residents suffer disproportionately in terms of financial access than their urban counterparts. Aside from being the most victims of the scheme's flat rate regressive premiums, rural residents also pay for transport, food and lodging from limited household incomes in order to access health services in Jirapa town. This comes as a result of lack of higher cadre health professionals at sub-district health centres, causing rampant referrals to the district hospital for higher level care. Secondly, their preference for a socialised form of health care, in contrast to a preference for technical quality health care by urban residents, is further prove of variations in determinants and barriers to access to health services between urban and rural areas. On the back of these observations, this study puts forward a number of recommendations that have implications both for policy and future research. The recommendations highlight short and long term actions that can be taken by the NHIS and the Ghana Health Service respectively, to remove access barriers and improve equity both in financing and health care delivery in the district.

8.5.1 Recommendations that relate the inequity in health financing

A number of feasible options are available for increasing financial access to needed health care. It is accepted that the exclusion of indigents is to do with

difficulty in recruiting them to share the benefits of health care (Witter and Garshong, 2009c, Schieber et al., 2012b, Akazili et al., 2012, Akazili et al., 2014, Derbile and van der Geest, 2013, Borghi, 2011). This thesis recommends that the criteria for identifying indigents should be reviewed, clarified and made more detailed for operational purposes. The Department of Social Welfare can lead this policy review process with the effective participation of beneficiary communities. The participation of communities will be crucial in identifying indigents in every community at the district level. A starting point is to take on board the views of communities' own understanding of poverty. Such input can help develop a set of possible indicators for identifying the poor for enrolment into the NHIS. However, these indicators will have to be 'localized' based on varying socio-economic conditions of different regions and districts. At the national level, providing more detailed policy guidelines for guiding the development of localised indicators for identifying the poor will be a better solution than attempting to provide a national definition of a poor person (Derbile and van der Geest, 2013, Witter and Garshong, 2009c). Community members can also help improve the effectiveness of means testing through active participation in identifying the poor, using approaches such as quantitative assessment of consumption levels and qualitative assessment to rank households by wealth (Tangcharoensathien et al., 2011).

To address the vertical inequity of insurance contributions by the informal sector and attain adequate financial protection and ultimately achieve universal coverage, two scenarios are recommended. Firstly, the scheme needs to extend prepayment cover to all those outside the formal sector, possibly through funding their contributions entirely from tax and possibly increasing

budgetary allocation to the health sector (Tangcharoensathien et al., 2011, Saleh, 2012, Schieber et al., 2012b, Apoya and Marriott, 2011), in line with the commitment by African heads of state in the Abuja Declaration to devote at least 15% of general tax revenue to spending on health services (Schieber et al., 2012b). Improved tax funding for health care is clearly of importance, and while this is not a simple task given the countries' narrow tax base (Saleh, 2012, Schieber et al., 2012b), it remains a policy option if Ghana is to achieve its goal of universal health coverage.

Secondly, there are attempts to implement health care financing reforms in the NHIS. With doubt cast over the feasibility of implementing the then proposed one-time payment for people in the informal sector, a new proposal has been put forward by a recent Review Committee setup by the President of Ghana in 2015 to review the current challenges faced by the scheme. Chaired by Dr Chris Atim, the committee has tabled a proposal that the scheme be restricted to a compulsory primary healthcare and maternal and child healthcare provision. Experts have described the scheme's current benefits package as bloated, inefficient and exclusionary and one which is not sustainable over time (Saleh, 2012, Schieber et al., 2012b, Witter and Garshong, 2009c). There appears to be a consensus on redesigning the scheme to provide compulsory free primary health care for all Ghanaians without the need for subscription to the NHIS. The redesign of the scheme would take advantage of the Government's ongoing focus on Community Health Planning Services (CHPS) zone expansion and reinforcement, to redirect public resources and efforts mainly towards primary healthcare and maternal and child health with the limited public resources. Under this new proposal the NHIS aims to re-prioritize

toward universal access to primary health care in the medium term, and progressive realization of universal access to higher levels of care in the long term. Refocusing public resources towards health, the Committee is of the view that addressing the top health priorities of the country, consistent with Ghana's income category, public resources should be spent on high impact, cost effective interventions to address the health conditions that are responsible for the country's underperformance in its key health indicators, such as the unacceptably high maternal and child deaths, which resulted in Ghana missing out on the health-related MDG targets.

8.5.2 Recommendations that relate to inequity in health care delivery

A comprehensive strategy and reforms in the form of equitable investment and distribution of human resources and infrastructure is required in order to address the current inequities in the health system. There is a need to scale up geographic distribution of health facilities, ensuring the routine availability of essential medicines in all facilities through improved drug procurement and distribution systems, providing patient transport to referral facilities (Gilson and Schneider, 2007). This will augment service delivery across the country to a level that is commensurate with increased service utilization, which has accompanied the removal of direct payments by the NHIS. It is fair to say that the current challenges have already been recognised by both the Ministry of Health and the NHIS and concerted efforts have been made in recent years to address them. Unfortunately however, implementation has not been as successful as planned. In terms of infrastructure, there is the need to speed up health infrastructure development across the country. District and sub-district

systems need to be strengthened, with a focus on primary care, particularly the sub-district level, where comprehensive primary health services should be provided (Schieber et al., 2012b). The CHPS model for example, viewed as the means to delivering primary health care and the foundation of the referral system, made a surge of progress between 1999 and 2005 (Apoya and Marriott, 2011, Nyonator et al., 2005). However, the momentum was lost largely due to lack of funds to continue with the construction of health facilities and training schools (Apoya and Marriott, 2011). The expansion of secondary and tertiary level facilities to meet the demand and utilization of care since the introduction of the NHIS also lost steam due to funding difficulties (MoH, 2012, Apoya and Marriott, 2011). But while funding is needed to continue these programmes, there is empirical evidence in support of the view that increasing private health care provision under the NHIS will augment health care provision in the district. According to experts private health care can provide supplementary health care and faster access and increased consumer choice in systems where waiting times for specialised care is substantial (Ozawa, 2011, Borghi, 2011, Saleh, 2012, Schieber et al., 2012b, Bitran, 2011). Such evidence is seen in countries such as Britain, Germany, and Thailand etc., in which the private health sector has played a supplementary role in the drive to universal coverage. Increasing the accreditation of private health facilities and creating an enabling environment for them to operate is a necessary option for the NHIS going forward.

In terms of health personnel, recent improvements in the number of doctors and nurses have not addressed the equity gap. The bulk of health personnel are based in cities with teaching hospitals (MoH, 2014) and incentive schemes such as the Deprived Area Incentive Allowance have not helped to improve

geographic equity overall (Apoya and Marriott, 2011). Therefore, fresh reforms in human resource policies and implementation are needed to address the inequity in urban-rural distribution of personnel, the inadequate total number of personnel, and the inadequate number of health personnel in poorer regions. According to Schieber et al. (2012b), Ghana needs to develop appropriate staffing norms that facilitate an effective redeployment of personnel and provide incentives to ensure staff commitment, productivity and attitude. The Ministry of Health must decentralize certain aspects of human resource management such as recruitment of personnel and come out with policies to address housing and infrastructure deficits in deprived areas. Furthermore, there is need for reform in the education and training of nurses. The Health Sector Programme of Work 2013 report (MoH, 2014) shows improvement in the training and regional distribution of nurses, yet the model seems to be weak in the training of rural-inclined students to bridge the staffing gap in rural areas as some nurses still refuse posting to rural areas. This needs to change to focus on the training of rural-inclined community health nurses, midwives and medical assistants, who with the much needed incentives will stay and work in rural communities (Schieber et al., 2012b).

Introducing a rotation system for higher cadre health professionals to work in rural sub-districts health centres is also a policy option for the Ghana Health Service to consider. In the absence of good economic and social services, good educational and recreational centres, these personnel who are already settled with their families in urban centres that have all the above services and amenities, are not encouraged to relocate to rural areas when they are posted or transferred there. This study suggests that higher cadre health professionals such as doctors, medical assistants and midwives be posted to work in rural

areas on rotation basis and be paid extra allowances for it. Doctors would rotate at the district level while Medical Assistants and Midwives be required to stay and work in a sub-district for a short period of, say, three months and return to their original duty post. The Ghana Health Service has a system called 'locum', where health professionals are sent to work in facilities that are in temporary shortage of staff. The challenge with the 'locum system' is that it is voluntary and health staff are not mandated to take positions in rural areas. The rotation will be made mandatory and staff will be required to abide by the schedule or face a penalty.

The implementation of these recommendations are subject to the availability of funds to invest in health care. Recent discussions about UHC and the post-2015 sustainable development goals stressed the need for increased domestic government spending on health and other social services in many countries (McIntyre and Meheus, 2014). In Ghana, where the level of government revenue remains relatively low, there is a range of opportunities to increase that revenue without further burdening the poorer population groups. These include improving tax compliance and reducing tax avoidance and evasion, especially by high net worth individuals and transnational companies; increasing personal income and corporate profit taxes; and ensuring that government revenue from mineral and other natural resources is maximized. Oxfam estimates that improving tax collection in 52 developing countries could raise an additional \$269 billion, which is enough to double health budgets in these countries (Averill and Marriott, 2013b). Urgent action on global tax evasion and avoidance is needed to ensure that countries can generate and retain more of their own resources for health.

To ensure an equitable share of domestic government resources for health services, McIntyre and Meheus (2014) proposes a target of domestic government spending on health care of at least 5 percent of GDP to achieve 'maximum available resources'. This proposal is supported by analyses of the relationship between government spending on health services and health status indicators; levels of OOP health care expenditure, which is closely related to the financial protection goal of UHC; and two indicators of service coverage and one indicator of service availability, which are closely related to the UHC goal of access to and use of needed health services. The target of 5 percent of GDP is backed by analyses undertaken for *The World Health Report 2010* and is in line with the global average of government health care expenditure (WHO, 2010a).

Part of addressing the fiscal space constraints also lies in how prudent donor funds are spent. There is opportunity for the Ministry of Health, the Ghana Health Service and the NHIA to harmonise and reorient funding from global health initiatives to strengthen health systems, in compliance with the Paris Declaration on aid effectiveness (OECD, 2012), in particular to strengthen primary health care. The Declaration calls for synergies of donor programmes in line with national priority and provides an opportunity to improve primary health care that is accessible to the rural populations (Tangcharoensathien et al., 2011).

8.5.3 Recommendations for addressing acceptability barriers

Addressing acceptability of health services in relation to the findings of this study requires firstly, a recognition of the variations in perceptions of quality care between rural and urban users of health care. There is also the need to recognise the socialized nature of health care and the cultural mismatches

between lay and professional health beliefs. And so, rather than blaming pregnant women for their poor health seeking behaviour, health workers need to understand the beliefs of the public they seek to serve and to tailor service delivery to their expectations and needs (Gilson et al., 2007). The discussions of policy actions to remove acceptability barriers have placed significance on training to improve the communication skills of health professionals (doctors, nurses, midwives and other staff), as well as their cultural sensitivity (Anderson et al., 2003, Tamsma and Berman, 2004, Shaikh and Hatcher, 2005).

In improving ethical practice, it is important to create a health workforce that is reflective and critical, compassionate and caring, and one that has integrity, creativity and sensitivity (Shaikh and Hatcher, 2005). However, since health workers are just messengers of the health system, perhaps a system-wide client-centred approach may be the way to organise health care systems (Shaikh and Hatcher, 2005), incorporating concern both for geographic and social distance in the delivery of care (Gilson et al., 2007). Particularly at the primary level, the client-centred approach should allow more time for personalised encounters between provider and patient (Thorson and Johansson, 2004), and for continuity of contact between patient and provider (Armstrong et al., 2006). The structural changes needed to make such encounters possible include increase in staffing levels and practices to reduce workloads and provider fatigue, building provider contexts in which provider discrimination towards certain groups of users might be reduced (Burgess et al., 2004).

A client-centred approach might also require action outside the existing health facilities, and addressing these external barriers may also build such groups'

trust in the health system by showing care for them in times of vulnerability (Macintyre and Hotchkiss, 1999). One would be to reduce costs by improving ambulance services or supporting the development of community-based emergency funds (Aitken and Thomas, 2004). Douri Sub-district Health Centre currently runs an emergency fund from which households borrow to pay for emergency ambulance services.

Sustaining the implementation of any of these policy proposals would require broader action. First, the organizational culture needs reorienting, particularly the human resource management practices in the sense these practices influence their behaviour towards patients (Tendler and Freedheim, 1994). The literature highlights the particular importance of non-financial incentives in encouraging caring and ethical behaviour (Owusu, 2005), that can be provided through group structures and social supports that also help health workers deal with stress (Scott et al., 1995). Financial incentives do, however, influence provider behaviour (Gilson, 2005). This could take the form of overtime or extra duty allowances to midwives for example, or better still a generous reward package for health workers. The United State sets a good example in this regard, in which a generous financial incentive is given for the performance of medical and surgical procedures (Scott et al., 2003).

8.5.4 Limitations of the study

The study has a number of limitations that range from limited sample size that makes it impossible to generalise the findings of the study, the lack of disaggregated data to ensure critical analysis, and the poor quality of secondary data.

Firstly, my familiarity and contacts with people in Jirapa District may have introduced bias to the study. As indicated earlier in chapter five of this study, my decision to choose Jirapa District was influenced by my familiarity and contacts with some staffs of the health services. Knowing the district so well may have biased the research objectives of the study and the selection of interview and survey questions. Although the selection of sub-districts was based on the recommendations of NHIS officials, my familiarity with the staffs (some of whom were interviewed for this thesis) may have introduced friendliness bias, with respondents demonstrating a tendency to agree with and be positive about whatever I presented. Although I was conscious of these potential biases and did my best to steer away from them as much as possible, bias cannot be completely ruled out in this thesis. Readers must therefore be mindful of this when referring to the findings of this thesis in academic exercises.

Secondly, given that the analyses are based on one district in Ghana, with a study sample size that is not representative of the population of the district, the results based on this district cannot be generalised to Ghana. Ghana is geographically diverse, and the various regions of the country have socio-cultural and socio-economic differences. Thus, the findings of this thesis are merely indicative and not necessarily generally applicable to the whole of Ghana. What is helpful from the point of view of this thesis is the combination of data obtained from the quantitative sample with rich information obtained from qualitative interviews. The combination of these two types of data has helped in giving an indication of the differences in determinants of enrolment and barriers of access to health care between rural and urban areas in the Jirapa district.

Notwithstanding the fact that strong effort was made to design the instrument and conduct interviews in a way that minimized bias, it is important to reflect on the use of some leading questions in the in-depth interviews, which may have biased the responses obtained from interviewees, thus, raising questions about reliability of the findings. As already mentioned however, the findings of this study are merely indicative of the differences in determinants of access to health services between rural and urban residents. Readers are cautioned not to make generalisations to the entire population or draw conclusions based exclusively on these findings.

The lack of accurate and reliable secondary data also constrained the depth and width of analyses for this thesis. Experts have warned about the quality of official statistics particularly regarding politically driven programmes such as the NHIS (Borghi et al., 2008, Agyepong and Adjei, 2008). And their observation seemed spot on following recent controversies that surrounded the scheme's coverage statistics (Apoya and Marriott, 2011, NHIA, 2012b). Oxfam was critical of the accuracy of enrolment statistics and accused the NHIS and the World Bank of exaggerating the scheme's coverage to gain political advantage (Apoya and Marriott, 2011). The NHIS initially denied massaging the figures, but upon intense pressure from the media and other stakeholders the NHIA admitted that enrolment figures were actually lower than reported. Officials of the scheme admitted during interviews that the previous formula calculated active membership by subtracting the number of all expired ID cards since inception of the scheme from the sum of all ID cards issued and ID cards renewed since inception of the scheme. This formula included members who had engaged in multiple registrations and thus over estimated the number of ID card holders. It also included members who had died, hence, it over estimated the number of ID

card holders. Clearly, the number of active members reported between 2005 and 2009 were inaccurate and misleading. Although a new ICT-based methodology was introduced in 2010 it could not be applied in retrospect to report active membership for the previous years (2005-2009). This explains why in this thesis, increased enrolment in the NHIS was reported from 2010 – 2013 (see figure 4.6.6A). This new methodology is based on the sum of the number of new members registered for a given year and the number of renewals made for that year. This ICT platform is currently used for the extraction of the number of new and renewing members annually. Although some caution is still needed in connection with data accuracy and quality, clearly, the NHIS have improved data management and accuracy.

There were other related data constraints; the first is the lack of disaggregated data as a basis for critically analysing services utilization by sex, age, location, socio-economic status etc. Apart from enrolment status and maternal care where data on pre-natal, antenatal and postnatal care records are available, the absence of disaggregated data on the utilization of health care by the various categories of users made it impossible to critically assess whether those exempt from paying premiums are actually using health care services. It is argued that some indigents in rural communities who have been registered are unable to travel to the scheme's office in Jirapa to take pictures for their ID cards. The same might be the case for facility visits where even when indigents are enrolled, travelling to health facilities might be still a barrier preventing them accessing health care. This is the reason the study had put down as an objective to assess the extent exempt groups were utilizing health care services. The lack of disaggregated data on utilization by different population groups limited the analysis to utilization of OPD services by insured and

uninsured. The unavailability of information on participants' socio economic status equally made it impossible to accurately determine participants' ability to pay for health insurance.

Another limitation was the gaps in the data obtained from the District Health Secretariat. The 2012 District Annual Health Report had several important statistics missing from the data reported by the health centres to the district health directorate. This throws up the lack of rigour in data generating processes which is typical of official statistics in these settings (Borghi et al., 2008, Agyepong and Adjei, 2008).

Last but not the least is the delay by health institutions in the release and publication of annual health reports. The most recent annual report published by the Ministry of Health was in 2014, and the most recent annual report published by the NHIS was that of 2013. While the field data for this thesis was collected in 2013 it has not been possible to update it because the most up-to-date information was not available. Thus, the absence of current information on enrolment outcomes and services utilization, the gaps in the data reported by health facilities, and lack of disaggregated data made it difficult to critically analyse service utilization trends associated with the removal of financial barriers to health care.

8.5.5 Future research

Based on the findings, recommendations and limitations of the thesis, there is need for further research that will build on this. There is a new proposal to scrap premiums in the NHIS and make primary health care free for all Ghanaians. Given the current fiscal constraints, what is needed as a starting point is research to assess the feasibility of the proposed programme. The research will focus on the costs, the fiscal space for health to determine the medium to long

term financial sustainability of the programme, leading to the attainment of universal health coverage.

There is equally the need for a comprehensive study to assess the health care needs of the country to inform adequate planning to embrace the implementation of the free primary health programme. What is clear currently is that the increase in utilization of health care services far exceeds available health care resources in the country. To successfully implement the proposed free primary health care scheme, therefore, empirical research is needed to ascertain the resource needs of the health care delivery system. Informed by empirical research it should be possible to avoid reinforcing the current mismatch between demand and supply of needed health care.

Thirdly, in recognition of the variations in perceptions of quality health care between rural and urban users, as well as the cultural mismatches between lay and professional health beliefs, new research is needed to inform the redesign and training of a client-centred health workforce that is reflective and critical, compassionate and caring, and one that has integrity, creativity and sensitivity.

Finally, new ideas to improve transport services to health facilities in rural areas is long overdue. A more effective ambulance system; one that is covered by the NHIS is needed to make transportation of the sick to facilities easy. The current ambulance system is not included in the NHIS benefits package. Yet it is an essential service, particularly to rural residents where daily transport services are poor. With the proposed free primary health care for all programme it is important to have a study that outlines an innovative strategy to improve

transportation from remote rural areas to health facilities in order to at least reduce the travel constraints they face.

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Appendices

Tables and documents in this section are arranged in accordance with the order of chapters in the thesis.

Appendix 1: Summary of the main features of Ghana NHIS

Feature	Description
Funding	<p>National Health Insurance Fund (NHIF) established to pay for:</p> <ul style="list-style-type: none">▪ Subsidies to schemes▪ Reinsurance for schemes▪ Cost of enrolling the indigent▪ Supporting access to health care <p>Funds to come from:</p> <ul style="list-style-type: none">▪ National Health Insurance Levy (NHIL) 2.5% of VAT levy.▪ Payroll deductions (2.5% of income) for formal sector employees▪ Other funds voted by Parliament, income from investments, any donations, or loans <p>In addition, DHMIS will raise funds from premia for informal sector members, to be set by agreement with the National Health Insurance Authority (NHIA)</p>
Membership	<p>Membership is mandatory (either via the DHMIS or a private insurance policy). Formal sector workers have involuntary payroll deductions (SSNIT contributions). Informal sector are charged premia which should be income-related. Initially, there is a six-month gap between joining and being eligible for</p>

	benefits.
Exemptions	<p>Some groups will be exempt from paying for membership (originally SSNIT pensioners, over-70s, under-18s where both parents are members; indigents). The NHIA will transfer subsidies to cover the cost of their enrolment. An indigent is defined as someone who meets four criteria:</p> <ul style="list-style-type: none"> ▪ is unemployed and has no visible source of income; ▪ does not have a fixed place of residence according to standards determined by the scheme; ▪ does not live with a person who is employed and who has a fixed place of residence; and ▪ does not have any identifiable consistent support from another person.
Benefits package	<p>All providers must offer a minimum package, which is specified and broad. National Health Insurance Drug List is established. 95% of all health care is covered – all services are included other than: rehabilitation other than physiotherapy; appliances and prostheses; cosmetic surgery; HIV retroviral drugs; assisted reproduction; echocardiography; photography; angiography; orthoptics; kidney dialysis; heart and brain surgery other than those resulting from accidents; cancer treatment other than cervical and breast cancer; organ transplantation; non-listed drugs; treatment abroad; medical examinations for visas etc.; VIP wards; and mortuary services.</p>
Eligible providers	<p>All providers are eligible, once accredited. Accreditation is reviewed every five years. Quarterly reports to be sent to the</p>

	<p>NHIC by providers.</p> <p>Providers are to be paid within four weeks of claim being made to DMHIS.</p>
Organization	<p>National Health Insurance Authority (NHIA) established to regulate the market, including accreditation of providers, agreeing contribution rates with schemes, resolving disputes, managing the NHIF, and approving cards.</p> <p>Each district to have a DMHIS (with a minimum of 2,000 members). Benefits to be transferable across district schemes.</p> <p>Each DHMIS to submit annual reports to NHIA and to undertake annual audit of accounts.</p> <p>Private MHIS not eligible for subsidies from NHIA.</p>
Accountability	<p>National Health Insurance Council (NHIC) established to oversee NHIA and licence schemes (every two years). Includes representatives of main stakeholder groups, such as Ministry of Health, Ghana Health Services, regulatory bodies, consumers, and Executive Secretary of the NHIA. Chair and Executive Secretary appointed by the President.</p> <p>NHIC proposes formula for allocation of funds to Parliament for annual approval, and provides annual report to Parliament on its use of funds.</p> <p>Each DHMIS governed by a Board.</p> <p>Rules established for handling complaints against providers or schemes.</p>
Source: Witter and Garshong (2009c:3)	

Appendix 2: Participant distribution and data collection method

Method	Users	Allopathic medicine Providers	Traditional medicine providers	NHIS personnel
Questionnaires	180	-	-	-
Semi-structured interviews	12 (3 urban, 9 rural)	8 (2 health officials, 1 doctor, 4 sub-district heads, 1 midwife),	8 (3 herbalists, 1 bonesetter, 4 TBAs)	4 (2 mangers, 2 community agents)

Appendix 3: Distribution of sub-districts and villages and participants in the survey

Sub-districts	Community	Frequencies	Percent
Jirapa Urban	Jirapa central	21	11.7
	Gbari	15	8.3
	Kuucheni	15	8.3
Douri	Duori Central	15	8.3
	Tankuri	15	8.3
	Guripaala	15	8.3
Tuggo	Tuggo Central	15	8.3
	Goziel	12	6.7
	Kul-ora	12	6.7
Yaga	Yaga Central	15	8.3
	Orphani	15	8.3
	Gbetuori	15	8.3
Total	12	180	100

Appendix 4: Consent from the Upper West Regional Director of Health Services to conduct the study in the region.

13th March, 2013

The Director of Health Services
Upper West Region

Dear Sir/Madam,

Permission to Conduct Research Study

I am writing to request permission to conduct a research study in the Jirapa district, Upper West region. I am currently enrolled in a PhD programme at the University of Bradford, UK, and am in the process of writing my thesis. The study is entitled 'Health Insurance and Access to health Care Services in Ghana: the case of Jirapa District.' I will be asking service providers, questions regarding the National Health Insurance Scheme (NHIS), and access to health care services in the Jirapa district. The results of the interviews will contribute to the debate about the factors that govern the poor and the poorest households' decision about enrolling in the NHIS in order to have access to health care services.

I hope that your outfit will allow me to interview seven health personnel from the district. These would include the district director of health services, 1 medical doctor, 1 public health nurse and 4 sub-district heads. Participants will be given a consent form to be signed (copy enclosed) and returned to me at the beginning of the interview.

If approval is granted, participants will be interviewed in their offices or other quiet setting within the work place as they prefer it. The interview process should take no longer than 1 hour. The interview results will be pooled for the thesis project and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your outfit or the individual participants.

Your approval to conduct this study will be greatly appreciated. I will follow up with a visit next week and would be happy to answer any questions or concerns that you may have at that time. You may contact me through email at: mkdomapi@student.bradford.ac.uk , or mobile: 0543907698.

If you agree, kindly sign below and return the signed form in the enclosed self-addressed envelope. Alternatively, kindly submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this study in the district.

Yours sincerely,

Maximillian Kolbe Domapielle
Development and Economics Studies
School of Social and International Studies
University of Bradford, UK.

Approved by:

DR. ALEXIS NANGBEIFUBAH
Print your name and title here

Handwritten note: Contents noted please make a copy for file.

Signature
Signature

Date
Date

**REGIONAL DIRECTOR
REGIONAL HEALTH SERVICE
WA- U/W/R**

8.26 x 11.63 in

Appendix 5: Survey questionnaire

PhD Thesis Questionnaire: Health Insurance and Access to Health Care Services.	
Bradford Centre for International Development (BCID) – University of Bradford, UK.	
Study District	
Community	
Date of interview	
Name of Participant	

Q No	Questions	Codes
0.1	Characteristics of the area where the house is located <i>[Please code by observation of housing situation.]</i>	Urban.....1 Rural2
0.2	Type of house (social cat. Proxy) <i>[Please code by observation of housing situation. If interview is not in the house, please ask]</i>	Made from mud, thatch, clay etc.....1 Partly low/ partly high quality materials....2 Block, stone or cement house.....3 Cannot say999
0.3	Main material of the floor <i>[Please code by observation of</i>	Gravel/sand.....1 Wood planks2 Broken bricks4 Cement5

	housing situation]	Other (specify).....6	
<p>Read out] Good morning/evening. My name is</p> <p>.....and I am a research student of the University of Bradford, UK. As part of my study I am doing a mini survey where I want to ask you some questions regarding the national health insurance scheme (NHIS) and access to health care services in the Jirapa district. Your participation will serve to contribute to the debate about the factors that govern the poor and the poorest house households' decision about enrolling on the national health insurance scheme and have access to health care services.</p> <p>The interview will take approximately 45 minutes. The answers given will be kept absolutely confidential and anonymous. I do not retain your personal data and will not give personal information to anyone. I would really appreciate it if you could spare some of your time for this interview. Thank you very much!</p>			
0.4	Are you willing to participate in this interview?	Yes.....1 No.....2	If no, go to 0.7
0.5	Start time	
0.6	End time	
0.7	Results of interview	Completed1 Incomplete2 Rescheduled3 Refused4	

Profile of Participant						
0.8	Age	19-24.....1 25-34.....2		0.12	Household size

		35-44.....3 45-54.....4 55+.....5			
0.9	Sex	Male.....1 Female.....2		0.13	Level of education Primary.....1 Secondary.....2 Tertiary3 Illiterate4
0.10	Religion	Christian.....1 Muslim.....2 Traditional believer.....3 Other (specify)...999		0.14	Livelihood Farming.....1 Petty trade.....2 Local manufacture...3 Labourer.....4 Formal employment.....5 Registered business.6 Artisan.....7 Collection.....8 Remittances.....9 Other transfers....10 Other services (specify).....999
0.11	Marital status	Married.....1 Single.....2 Divorced.....3 Widowed.....4			

Section 2: NHIS Membership			
Q No	Questions	Codes	
		Yes	No

1.1	Do you and your household access health care from a health facility?		1	2
1.2	Are you aware of the existence of the national health insurance scheme that offer health services for people like you?		1	2
1.3	How did you come to know about the NHIS?	At the hospital	1	2
		Friends/family	1	2
		Media	1	2
		Workplace	1	2
		Place of worship	1	2
		Market	1	2
		Community sensitization	1	2
		Other (specify)		
<p>[Read out] Health insurance is where you make regular payments towards the future cost of medical care (treatment, hospitalisation, drugs, and so on). In case of sickness of an insured person, the health insurance scheme pays a major proportion of total medical bills. You pay your contribution and many others do the same. It saves you the financial burden of personally bearing all the medical bills in times of a sickness crisis as out-of-pocket payment (OOP) can be more than you could pay in premium in years. Insured persons, who do not have any illness costs, do not get the premiums back at the end of the insurance period; instead, the premiums are kept by the insurance in order to pay for the medical bills of other insured persons or for expenditures in future years.</p>				
1.4	Are you a member of the National Health Insurance Scheme?	Yes.....1		
		Previously enrolled2		Go to: 1.13
		Never enrolled.....3		Go to: 1.13
1.5	How long have you been a member of the NHIS? Months Years		

1.6	Why have you / the insured household members decided to join the scheme?		Yes	No
		Good quality of care offered	1	2
		Financial protection against illness	1	2
		Compulsory	1	2
		Somebody told me to do so	1	2
		Cheaper than OPP	1	2
		Other (specify)	1	2
1.7	How much premium did your household pay for health insurance in the last 12 months to the NHIS <i>in total</i> ?	GH¢.....		
1.8	How often do you normally have to pay premium in this scheme?	Every week	1	
		Every month	2	
		Every quarter	3	
		Every 6 months	4	
		Every 12 months	5	
1.10	Have the terms and conditions of the insurance product been clearly communicated to you?	Yes	No	
		1	2	
1.11	Do you believe that you have a good understanding of the insurance product, including what you pay and benefits you receive?	1	2	
1.12	Will your household quit the NHIS in future?	1	2	
1.13	(Never enrolled) Why are you or other members of the household not insured in the scheme? You can give more than one reason. (Read out options. Multiple answers possible)	Have not heard about	1	2
		I cannot afford the premium	1	2
		Registration point is too far	1	2
		I do not like the benefits package	1	2
		Why pay when I am not sick	1	2

		I use traditional medicine only	1	2
		Timing of collection of premium not convenient	1	2
		No means of transport to health facility	1	2
		Health care provided of bad quality	1	2
1.14	<i>(Previously enrolled) What are your reasons for dropping out of the NHIS?</i>	Expensive renewal fees	1	2
		Benefits are not good	1	2
		I do not trust it	1	2
		Health care provided of bad quality	1	2
		I forgot to renew my membership	1	2
		The NHIS office is too faraway	1	2
		Health facilities are too faraway	1	2
		No means of transport to health facility	1	2
		Timing of collection of premium not convenient	1	2
Section 2: Attitudes /trust in the NHIS				
<i>[Read out] In the following I read some statements to you. For each statement, please tell me whether you [Explain or show scale to participant] strongly agree/agree/neither agree or disagree/disagree/strongly disagree with them.</i>				
Q No	Questions	Codes		
2.1	The NHIS is familiar with the daily life of people like me and my family and know about my needs.	Agree.....1 Neither agree nor disagree...2 Disagree.....3		
2.2	Payment of the NHIS premium is flexible and I can pay anytime I have the money to pay without any penalties?	Agree.....1 Neither agree nor disagree...2 Disagree.....3		

2.3	The NHIS membership is voluntary and I can join or quit when I want to.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.4	The NHIS is more about saving money than about getting you the treatment you need.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.5	As far as you know, the people at the NHIS are very good at what they do.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.6	I do not expect anything good to come from the NHIS.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.7	You believe the NHIS will pay for everything it is supposed to, even very expensive treatments and drugs	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.8	The NHIS cares more about their profit than about serving your needs.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.9	The people at NHIS are very honest.	Agree.....1 Neither agree nor disagree...2 Disagree.....3
2.10	All in all, you have complete trust in NHIS	Agree.....1 Neither agree nor disagree...2 Disagree.....3

Section 3: Access to health care services

Under the following headings choose the factors that have influenced your decision to, or not enroll in the NHIS

Q No.	Questions	Codes	
3.1 Geographic Accessibility to health care services		Yes	No
3.1.1	Is the district scheme office location convenient for you and your household?	1	2
3.1.2	Are the scheme office opening hours convenient?	1	2
3.1.3	Is the collection of insurance cards convenient?	1	2
3.1.4	Is there a health facility located in your community?	1	2

3.1.5	Is the health facility located near where you live?	1	2
3.1.6	Is the facility opening hours convenient?	1	2
3.1.7	Is the location of the drug dispensary convenient?	1	2
3.1.8	Can you mention any other difficulties you face in relation to the location of health facilities in your area?	...	
3.2 Availability of health care services		Yes	No
3.2.1	Are there sufficient good doctors?	1	2
3.2.2	Are there sufficient good nurses and midwives?	1	2
3.2.3	The health facility is not far away from my area	1	2
3.2.4	Health facilities are often too crowded	1	2
3.2.5	Is the medical and laboratory equipment adequate?	1	2
3.2.6	Are there sufficient rooms and beds in the health facility you normally access care?	1	2
3.2.7	Are the laboratory services adequate and effective?	1	2
3.2.8	Are prescribed drugs readily available?	1	2
3.2.9	Do you often have to pay for prescribed drugs?	1	2
3.2.10	Do you think that drugs given at the hospital are of a higher quality than drugs given in the clinics and health centres?	1	2
3.2.11	Is the ambulance service effective?	1	2
3.2.12	Are there good roads to the health facility?	1	2
3.2.13	Is there a good transport system in your area?	1	2
3.2.14	Do you normally have to wait for long to get access to a doctor?	1	2
3.2.15	Community outreach service is regular and effective	1	2
3.2.16	Do the NHIS agents come regularly to renew and register	1	2

	new members?		
3.2.17	Would you say the NHIS has made health care services more available to you and your household?	1	2
3.2.18	What other services would you want to be added to the services already provided under the NHIS?	<div>....</div> <div>....</div>	
3.3 Financial accessibility of health care services		Yes	No
3.3.1	Is the NHIS premium affordable?	1	2
3.3.2	Is the cost of transportation to health facility affordable?	1	2
3.3.3	Do you think the NHIS favours the rich more than the poor?	Yes	No
3.3.4	What are the reason(s) for your answer to Q. 3.3.5/3.3.6	
3.4 Acceptability of health care services		Yes	No
3.4.1	Is the registration process friendly?	1	2
3.4.2	Is the process of premium payment convenient?	1	2
3.4.3	Is renewal of membership convenient?	1	2
3.4.4	Are membership cards issued on time?	1	2
3.4.5	Is the timing for collection of premium convenient?	1	2
3.4.6	Are the NHIS agents friendly and respectful?	1	2
3.4.7	Are you satisfied with the NHIS benefit package?	1	2
3.4.8	Do doctors and staff at the health facility you normally use get you all the care you need?	1	2
3.4.10	Is the quality of the prescribed drugs good?	1	2

3.4.11	Are the pharmacists good at what they do?	1	2	
3.4.12	The health facility staffs are respectful and friendly?	1	2	
3.4.13	Do you get immediate care when attend the health facility?	1	2	
3.4.14	Overall, are you satisfied with the quality of health care you get in your area?	1	2	
3.4.15	What in your view needs to change to make access to health care services more user-friendly and acceptable to you?			
Section 4: health beliefs, attitudes and trust				
Q No	Questions	Codes		
4.1	Do you seek health care from TMPs	Yes	1	
		No	2	
4.2	Do you and your household first contact for treatment, TMPs or Orthodox practitioners?	TMPs	1	
		Ortho.	2	
4.3	From which of these TMPs do you and your household normally seek treatment?	Herbalist.....1 Spiritualist.....2 Fetish priest.....3 Bone setters.....4 Traditional birth attendants.....5		
4.4	What are your reasons for seeking treatment from TMPs and not the hospital or clinic? (mention other reasons if not in the list given)	Modern medicine cannot cure some illnesses	Yes 1	No 2
		Some illnesses are spiritual (supernatural)	1	2
		TMPs provide friendly health care	1	2

		Family influenced me	1	2
		Their location is convenient	1	2
		TMPs are always available	1	2
		They have convenient working hours	1	2
		Herbs/drugs are readily available	1	2
		Charges are less expensive compared to orthodox medicine	1	2
		Payment for services is flexible, (cash and kind)	1	2
		I belief it works	1	2
		Others (specify).....		
<p>[Read out] In the following I read some statements to you. For each statement, please tell me whether you strongly agree/agree/neither agree or disagree/disagree/strongly disagree with them.</p>				
4.5	<i>TMPs are familiar with the daily life of people like me and my family and know about our needs</i>	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		
4.6	<i>I do not expect anything good to come from TMPs</i>	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		
4.7	<i>As far as you know, TMPs are very good at what they do</i>	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		
4.8	<i>You think TMPs are very honest people</i>	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		
4.9	<i>TMPs are interested in making money than offering health care to their clients</i>	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		

4.10	All in all, you have complete trust in TMPs you normally visit for your health care needs	Agree.....1 Neither agree nor disagree.....2 Disagree.....3		
4.11	Would you enrol on the NHIS if the services provided by your TMP(s) are covered by the NHIS? This means that you will not pay for care at the point of service anymore?	Yes	No	
		1	2	
Section 5: Willingness and Ability to Pay				
Q No	Questions	Codes		
5.1	How easily have you been able to pay for medical bills in times of sickness of yourself or your household members?	Easy.....1 Neither easy nor difficult.....2 Difficult.....3		
5.2	The NHIS minimum premium per person is GH¢ 12.00. In relation to your income, what do you think about the premium? (Read out)	Expensive....1 Just ok.....2 Inexpensive...3 Cheap.....4		
5.3	(If currently enrolled) would you pay for health insurance if the premium was.....(start from GH¢13.00 up to GH¢20.00)	Gh¢	Yes	No
		13	1	2
		14	1	2
		15	1	2
		16	1	2
		17	1	2
		18	1	2
		19	1	2
		20	1	2
5.4	This means you would be interested in the NHIS package if it would cost? Write down the amount.	GH¢.....		

5.5	From which sources do you raise funds to pay your NHIS premium? [Please enter up to three most important sources. Use the codes of following options:] 01 = Savings 02 = Savings/credit club 03 = Borrowed from relative/ friend 04 = Borrowed from moneylender 05 = Borrowed from [local partner organization] 06 = Borrowed from bank 07 = Farm produce 08 = Sold assets 09 = Other (specify)		Sources by importance: <div> <input type="text"/> <input type="text"/> 1st important </div> <div> <input type="text"/> <input type="text"/> 2nd important </div> <div> <input type="text"/> <input type="text"/> 3rd important </div> If “other” used, please specify here:	
5.6	Are you able to pay the premium on time?		Yes	No
			1	2
5.7	If no, say why are you unable to pay on time?	Price of premium is high	1	2
Timing for collection of premium not favourable		1	2	
Agents do not come around regularly		1	2	
Health insurance office is too far away		1	2	
Other (specify).....				
5.8	(If not enrolled) would you pay for health insurance if the premium was.....(start from GH¢6.00 up to GH¢11.00)		Yes	No
GH¢6.00		1	2	
GH¢7.00		1	2	
GH¢8.00		1	2	

		GH¢9.00	1	2
		GH¢10.00	1	2
		GH¢11.00	1	2
	This means you would be interested in the NHIS package if it would cost? Write down the amount.		Gh¢	

Appendix 6: Interview guide

Semi-structured interviews were conducted with users, providers, traditional medicine practitioners, NHIS agents and managers of the scheme. Below is a checklist reflecting the types of questions that were thrown to various interview participants. It is important to note however that this is a semi-structure guide, which means that this checklist may not have covered all the questions thrown to participants in the interviews.

A. Users

1. Membership of the NHIS
2. Trust of the NHIS
3. Their perceptions of issues that reflect the four dimensions of access to health care services:
4. Geographic accessibility
5. Availability of services
6. Affordability of services
7. Acceptability

B. Providers

Geographic accessibility

1. Has the introduction of the national health insurance led to an increase in facility attendance?
2. In relation to distance, is the location of the facility convenient most of the users within the catchment area?
3. Do you think that your opening hours are convenient for users?
4. Is there a licenced drug or chemical seller in your community?
5. Do you have an effective ambulance service?
6. What challenges do you face regarding the location of the facility?

Availability of services

1. Do you enough good nurses working in the facility?
2. Is there a laboratory to test for all kinds of diseases?
3. Are there enough rooms and beds for in-patients?

4. Are prescribed drugs readily available in your dispensary?
5. Do NHIS members pay for drugs?
6. Has national health insurance enabled many poor households to visit the facility regularly?

Financial accessibility

1. Affordability of NHIS premium
2. Cost of transportation to service points
3. Cost of others services not covered by the NHIS
4. Ability to pay for drugs

Acceptability of services

1. Friendliness of the registration process?
2. Is timing for collection of premiums convenient for the poor?
3. Do service providers understand the way of life of users?
4. Do providers offer user –friendly health care services?
5. Do you provide quality care to users?
6. Do you offer differentiated services to NHIS members?

Health beliefs and utilization of TMPs services

1. Are there any TMPs operating in the area that you know about?
2. What types of services do they provide to clients?
3. Do you think they understand users better and provide user-friendly services to them?
4. Do their activities prevent the poor from visiting health facilities?
5. Do you think that some clients visit TMPs first before seeking care at the facility?
6. Is it possible to work in collaboration with TMPs?
7. Is it possible to include them in the NHIS?
8. Will their inclusion increase NHIS enrolment in the area?

C. Traditional Medicine Practitioners (TMPs)

1. Do you provide health care services to clients?
2. What types of health care services do you offer to clients

3. Do think many some clients visit you first before continuing treatment at the health facility?
4. Why do users prefer TMP care to facility care?
5. Do you sometimes refer clients to the health facility for care?
6. Do you know about the NHIS?
7. Would you like to be included in the NHIS? – This means you will provide services to clients and receive payment later.
8. On average, how much do you normally charge for services?
9. Are charges always in cash or sometimes in kind?
10. What happens to clients who are not able to pay immediately?
11. Are all TMPs honest health care providers?
12. Can you work in collaboration with orthodox practitioners?
13. What do you envisage as likely challenges in that partnership?

D. Agents

1. What is your role as a NHIS agent?
2. Do you think the terms and conditions of the NHIS have been clearly communicated to community members?
3. Is the scheme office location convenient for you and the households you serve?
4. What are the challenges you and the households face relation to location?

Availability of services

1. Are members satisfied with the NHIS benefit package?
2. Are members happy with the services they get from the health facility?
3. Are households failing to enrol or renew their membership due to poor services offered them at the health facility?
4. What other services would want to be added to the benefit package?

Financial accessibility

1. Is the premium affordable to the poor?
2. Do you think it favours the rich than the poor?
3. Is transportation cost a challenge for the poor?

4. How do households raise money to pay NHIS premium?
5. Do poor households sell assets to pay premium?

Acceptability of services

1. Friendliness of the registration process?
2. Is timing for collection of premiums convenient for the poor?
3. Are membership cards issued on time?
4. What need to change to make services more acceptable?

TMPs services

1. Are there TMPs in your area?
2. Do you think they are providing acceptable health care to the poor?
3. Are their services relevant in health care provision?
4. Should they be included in the NHIS?
5. Would their inclusion increase enrolment?

E. NHIS Management

Geographic accessibility

1. What year did the NHIS commence operation in the Jirapa district?
2. The scheme office is located in Jirapa town; given the long distance that most of the people are required to cover to register or renew the membership do you think some people could be discouraged to come in and join the scheme?
3. How about establishing area-based offices to address location challenges?
4. Motivation for agents - given the tasks NHIS agents are required to perform, do you think they need to be motivated in the areas of T&T, salary, and means of transport to be able cover the designated catchment areas?
5. Generally speaking, would you say the location of health facilities in the district is convenient for most the people who access them?
6. In my survey 42% of participants live far away from any health facilities including the CHIP compounds and the nurses agree with the view that

in spite of the presence of the CHIPs compounds some communities are still distant away from the health facilities.

7. Is the location of the drug chemical shops convenient?
8. Are there other difficulties you face in relation to the location?

Availability of services

1. Do you have sufficient good doctors in the Jirapa hospital, i.e. general practitioners, gynaecologists, dentists, neurologist etc?
2. Do you think the availability health personnel influence households' decision to enrol in the NHIS?
3. Do health facilities have the required equipment to provide quality/effective health care to clients?
4. Do you know whether prescribed drugs are always readily available for NHIS members?
5. Have you receive any complaints of NHIS members having to pay for prescribed drugs that are covered by the NHIS?
6. Why are essential drugs like JV, vitamin B complex, Vitamin C not included in the NHIS list of drugs?
7. Do nurses know what these alternative drugs are? They impression created is that some essential drugs have been excluded.
8. In terms of outreach services, are you able to meet your target of reaching every community to take photoschallenges in relation to staffing and logistics to move around communities in the district?
9. Would you say the NHIS has made health care services more available to the poor and the poorest households in the Jirapa district? Where is the evidence?
10. Are there plans to add to the range of services already provided under the NHIS, i.e drugs? Equipment, ambulance services etc.

Financial accessibility

1. Is the NHIS premium affordable? 70.8% of my survey participants thought the premium was beyond their reach taking into account the average household size.

2. Would you agree with those who argue that the NHIS favours the rich more than the poor?

Acceptability of health care services

1. Would you say the design elements of the NHIS are in tune with the local cultural notion of social solidarity?
2. What in your view needs to change to make access to health care services more user-friendly and acceptable to clients?

TMP services

1. Are you aware of the operations of TMPs in the district?
2. Do you have any provision for traditional medicine in the NHIS?
3. Given the fact that there are not health facilities in every community in the district, would you say that some of them (i.e. bonesetters, TBAs) are playing a helpful role in the provision of alternative health care services to the poor resident in faraway communities?
4. Other factors that govern poor households' decisions to seek treatment from TMPs is the cultural acceptability of their services; convenience, costs, friendliness and flexibility of payment arrangements. Do you share this view?
5. If you share this view, should we include some of them we trust in the NHIS?
6. Do you think that including in the NHIS will increase and sustain enrolment of members?